DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 22-103877-WG

Project Name/Address: Lo Pier Repair / 106 Cascade Key

Planner: Drew Folsom, 425-452-4441
dfolsom@bellevuewa.gov

Minimum Comment Period: May 19, 2022

Materials included in this Notice:

- ☑ Blue Bulletin
- ☑ Checklist
- ☑ Vicinity Map
- ☑ Plans
- ☐ Other:

OTHERS TO RECEIVE THIS DOCUMENT:

- ☑ State Department of Fish and Wildlife
- ☑ State Department of Ecology, Shoreline Planner N.W. Region
- ☑ Army Corps of Engineers
- ☑ Attorney General
- ☑ Muckleshoot Indian Tribe

Development Services

SEPA Environmental Checklist

The City of Bellevue uses this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions

The checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully and to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions.

You may respond with “Not Applicable” or "Does Not Apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and reports. Please make complete and accurate answers to these questions to the best of your ability in order to avoid delays. For assistance, see SEPA Checklist Guidance on the Washington State Department of Ecology website.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The city may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Background

1. Name of proposed project, if applicable Lo Pier
2. Name of applicant Doug Lo
3. Contact person Madison Johnson - Seaborn Pile Driving Phone 206-236-1700
4. Contact person address 1080 W Ewing St Bldg B Seattle WA 98119
5. Date this checklist was prepared 2/7/2022
6. Agency requesting the checklist City of Bellevue

D. Folsom 5/2/22

7. Proposed timing or schedule (including phasing, if applicable)

Upon receipt of all permits & open work window

8. Do you have any plans for future additions, expansion or further activity related to or connected with this proposal? If yes, explain.

No

9. List any environmental information you know about that has been prepared or will be prepared, that is directly related to this proposal.

No Net Loss report

10. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

11. List any government approvals or permits that will be needed for your proposal, if known.

City of Bellevue SSDP w/ SEPA review & Building permit
federal Section 10 permit from US Army Corps of Engineers
Hydraulic Project Approval permit from WA Dept of Fish & Wildlife

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12. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

13. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and the section, township and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

106 Cascade Key Bellevue, WA 98006
Pin: 607280-0135
NE Quarter Of Section 17, Township 24, Range 05

Environmental Elements

Earth

1. General description of the site:
   - ☑ Flat
   - ☐ Rolling
   - ☐ Hilly
   - ☐ Steep Slopes
   - ☐ Mountainous
   - ☐ Other _____
2. What is the steepest slope on the site (approximate percent slope)? less than 5%

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3. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Sand and gravel

4. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

5. Describe the purpose, type, total area and approximate quantities and total affected area of any filling, excavation and grading proposed. Indicate the source of the fill.

None

6. Could erosion occur as a result of clearing, construction or use? If so, generally describe.

No

7. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? None

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8. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

N/A

Air

1. What types of emissions to the air would result from the proposal during construction, operation and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Exhaust smoke from construction equipment

2. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

3. Proposed measures to reduce or control emissions or other impacts to air, if any.

Run equipment only as necessary

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Water

1. Surface Water
   a. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

   Lake Washington

   b. Will the project require any work over, in or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

   We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

   c. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of the fill material.

   None

   d. Will the proposal require surface water withdrawals or diversions? Give a general description, purpose and approximate quantities, if known.

   No

   e. Does the proposal lie within a 100-year floodplain? No
   If so, note the location on the site plan.

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f. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

2. Ground Water

a. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No

b. Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None

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3. Water Runoff (including stormwater)
   a. Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

N/A

   b. Could waste materials enter ground or surface waters? If so, generally describe.

N/A

   c. Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

N/A

Indicate any proposed measures to reduce or control surface, ground and runoff water, and drainage pattern impacts, if any.

N/A

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Plants

1. Check the types of vegetation found on the site:
   - ☐ deciduous tree: alder, maple, aspen, other _____
   - ☑ evergreen tree: fir, cedar, pine, other _____
   - ☑ shrubs
   - ☑ grass
   - ☐ pasture
   - ☐ crop or grain
   - ☐ orchards, vineyards or other permanent crops
   - ☐ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other _____
   - ☐ water plants: water lily eelgrass, milfoil, other _____
   - ☐ other types of vegetation _____

2. What kind and amount of vegetation will be removed or altered?

   None

3. List any threatened and endangered species known to be on or near the site.

   No know threatened or endangered species on or near the site.

4. Proposed landscaping, use of native plants or other measures to preserve or enhance vegetation on the site, if any.

   Please see associated native planting & vegetation plan.

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5. List all noxious weeds and invasive species known to be on or near the site.

None present along shoreline adjacent to work site.

Animals

1. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

   Birds: ☐hawk, ☐heron, ☐eagle, ☐songbirds, ☐other _____

   Mammals: ☐deer, ☐bear, ☐elk, ☐beaver, ☐other _____

   Fish: ☐bass, ☑salmon, ☐trout, ☐herring, ☐shellfish, ☐other _____

2. List any threatened and endangered species known to be on or near the site.

No know threatened or endangered species on or near the site.

3. Is the site part of a migration route? If so, explain.

Unknown

4. Proposed measures to preserve or enhance wildlife, if any.

Mitigation including fully grated decking material, native shoreline vegetation plan, and construction during fish-friendly work windows.

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5. List any invasive animal species known to be on or near the site.

Unknown

Energy and Natural Resources

1. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

None

2. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

3. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

N/A

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Environmental Health

1. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste, that could occur as a result of this proposal? If so, describe.

No

   a. Describe any known or possible contamination at the site from present or past uses.

Unknown

   b. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None

   c. Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None

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d. Describe special emergency services that might be required.

None

e. Proposed measures to reduce or control environmental health hazards, if any.

N/A

2. Noise

a. What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

b. What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Noise from construction equipment

c. Proposed measures to reduce or control noise impacts, if any.

Run equipment only as necessary

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Land and Shoreline Uses

1. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Single-family residential

2. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to non-farm or non-forest use?

No

   a. Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling and harvesting? If so, how?

No

3. Describe any structures on the site.

Multi-story single family home

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4. Will any structures be demolished? If so, what?

No

5. What is the current zoning classification of the site? R-2.5

6. What is the current comprehensive plan designation of the site? Urban residential

7. If applicable, what is the current shoreline master program designation of the site?

Urban residential

8. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No

9. Approximately how many people would reside or work in the completed project? None

10. Approximately how many people would the completed project displace? None

11. Proposed measures to avoid or reduce displacement impacts, if any.

N/A

12. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

To ensure local, state, and federal compliance, the project will include an SSDP w/ SEPA review and Building permit from the city of Bellevue, a Hydraulic Project Approval permit from WDFW, and a federal Section 10 permit from the US Army Corps of Engineers.

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13. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any.

N/A

Housing

1. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None

2. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

3. Proposed measures to reduce or control housing impacts, if any.

N/A

Aesthetics

1. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Less than 60" above OHWM

2. What views in the immediate vicinity would be altered or obstructed?

None

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3. Proposed measures to reduce or control aesthetic impacts, if any

N/A

Light and Glare

1. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None

2. Could light or glare from the finished project be a safety hazard or interfere with views?

No

3. What existing off-site sources of light or glare may affect your proposal?

None

4. Proposed measures to reduce or control light and glare impacts, if any.

N/A

Recreation

1. What designated and informal recreational opportunities are in the immediate vicinity?

Residential swimming & boating

2. Would the proposed project displace any existing recreational uses? If so, describe.

No

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3. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.

N/A

Historic and Cultural Preservation

1. Are there any buildings, structures or sites located on or near the site that are over 45 years old listed in or eligible for listing in national, state or local preservation registers located on or near the site? If so, specifically describe.

Unknown

2. Are there any landmarks, features or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Unknown

3. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Review by the US Army Corps of Engineers

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4. Proposed measures to avoid, minimize or compensate for loss, changes to and disturbance to resources. Please include plans for the above and any permits that may be required.

N/A

Transportation

1. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Cascade Key

2. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Closest transit stop is Coal Creek Parkway Freeway stop, about 1.3mi from residence

3. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

None

4. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No

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5. Will the project or proposal use (or occur in the immediate vicinity of) water, rail or air transportation? If so, generally describe.

No

6. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

None

7. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

8. Proposed measures to reduce or control transportation impacts, if any.

N/A

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Public Service

1. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No

2. Proposed measures to reduce or control direct impacts on public services, if any.

N/A

Utilities

1. Check the utilities currently available at the site:
   - ☑ Electricity
   - ☐ natural gas
   - ☑ water
   - ☑ refuse service
   - ☑ telephone
   - ☐ sanitary sewer
   - ☐ septic system
   - ☐ other

2. Describe the utilities that are proposed for the project, the utility providing the service and the general construction activities on the site or in the immediate vicinity which might be needed.

None

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Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature _____

Name of signee Madison Johnson

Position and Agency/Organization Permit Technician - Seaborn Pile Driving

Date Submitted _____

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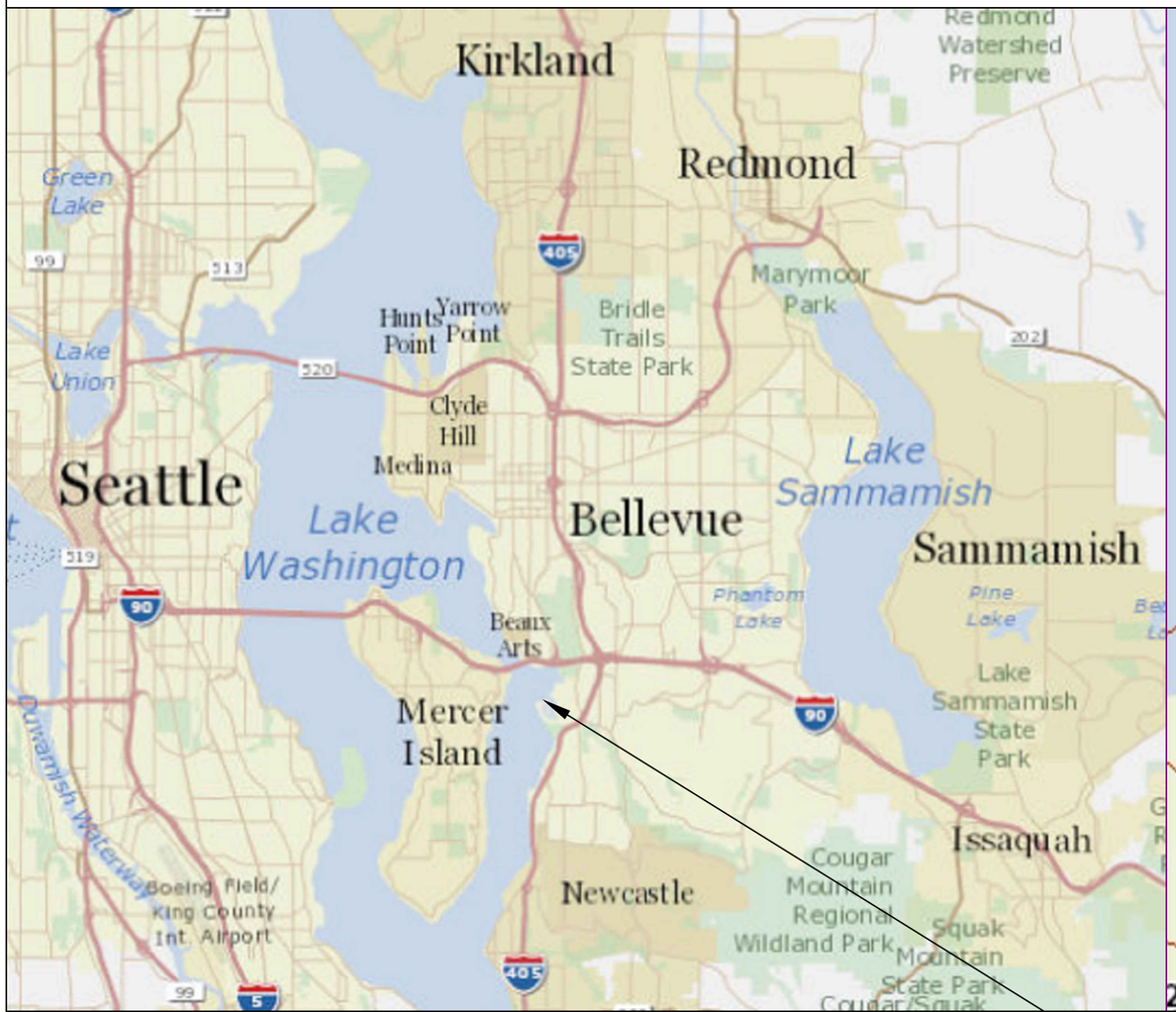
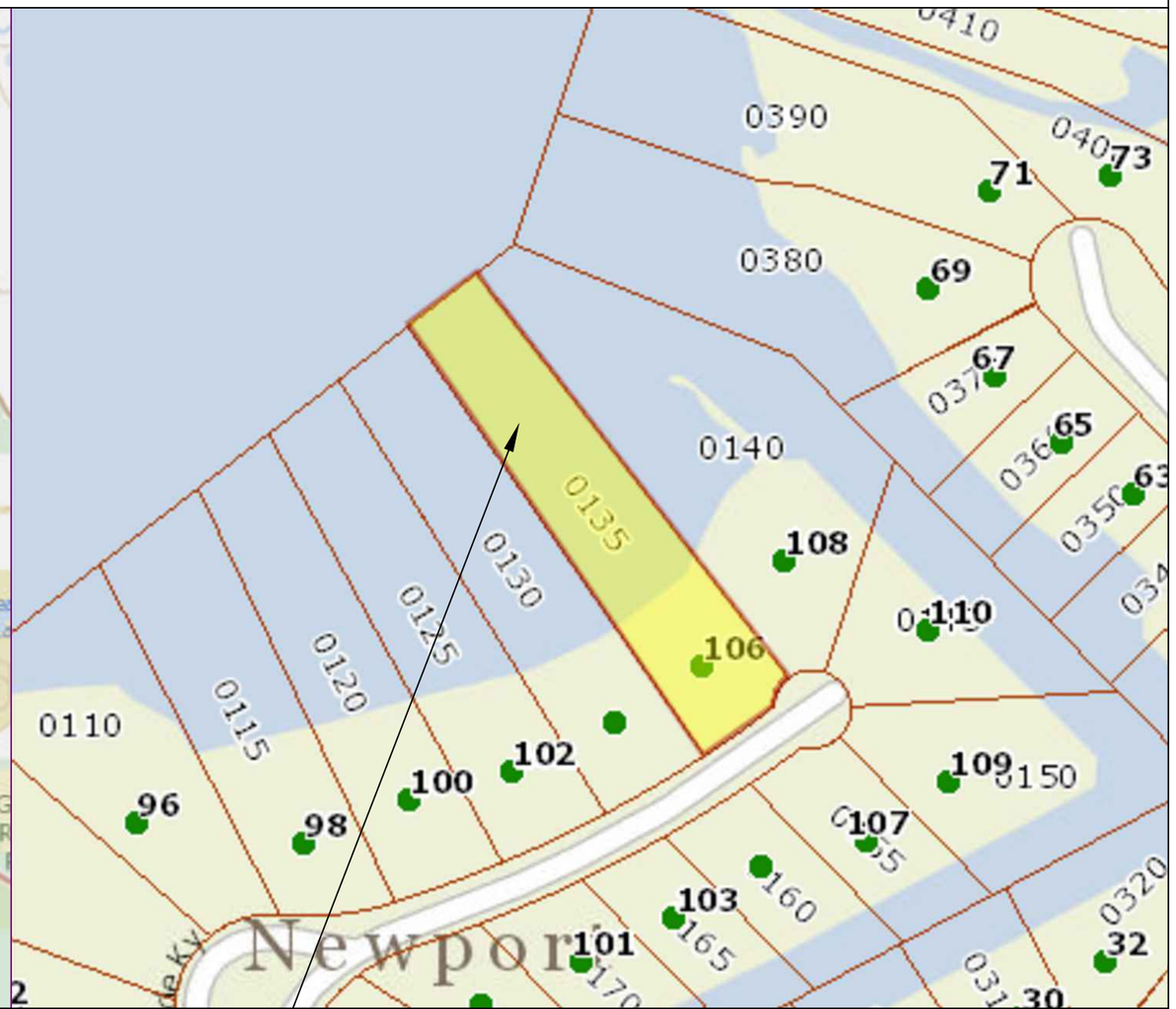
SITE PLAN





SUBJECT PROPERTY

Pin: 607280-0135

Legal Description: NEWPORT REVISED DIV # 1

Plat Block:
Plat Lot: 27

LAT: 47.57205 LONG: -122.19164

BUILT BY SEABORN · ESTD 1947 ·

Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006

PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

SHEET A1.0

NWS-2021-XXX
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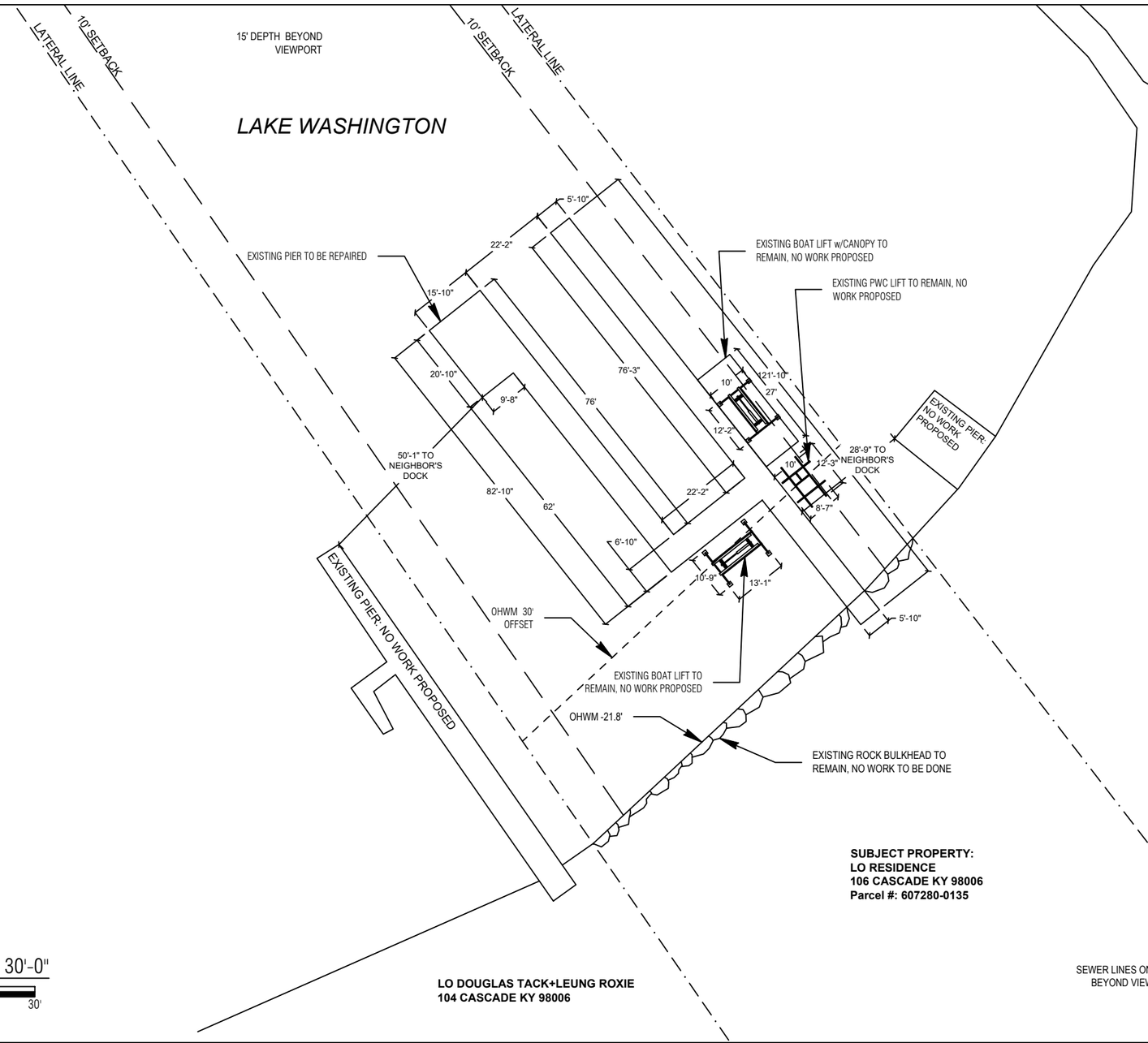
EXISTING CONDITIONS

CLEAN UP LAKE AROUND PROJECT



SCALE: 1" = 30'-0"

0' 7.5' 15' 30'

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104 CASCADE KY 98006

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108 CASCADE KY 98006

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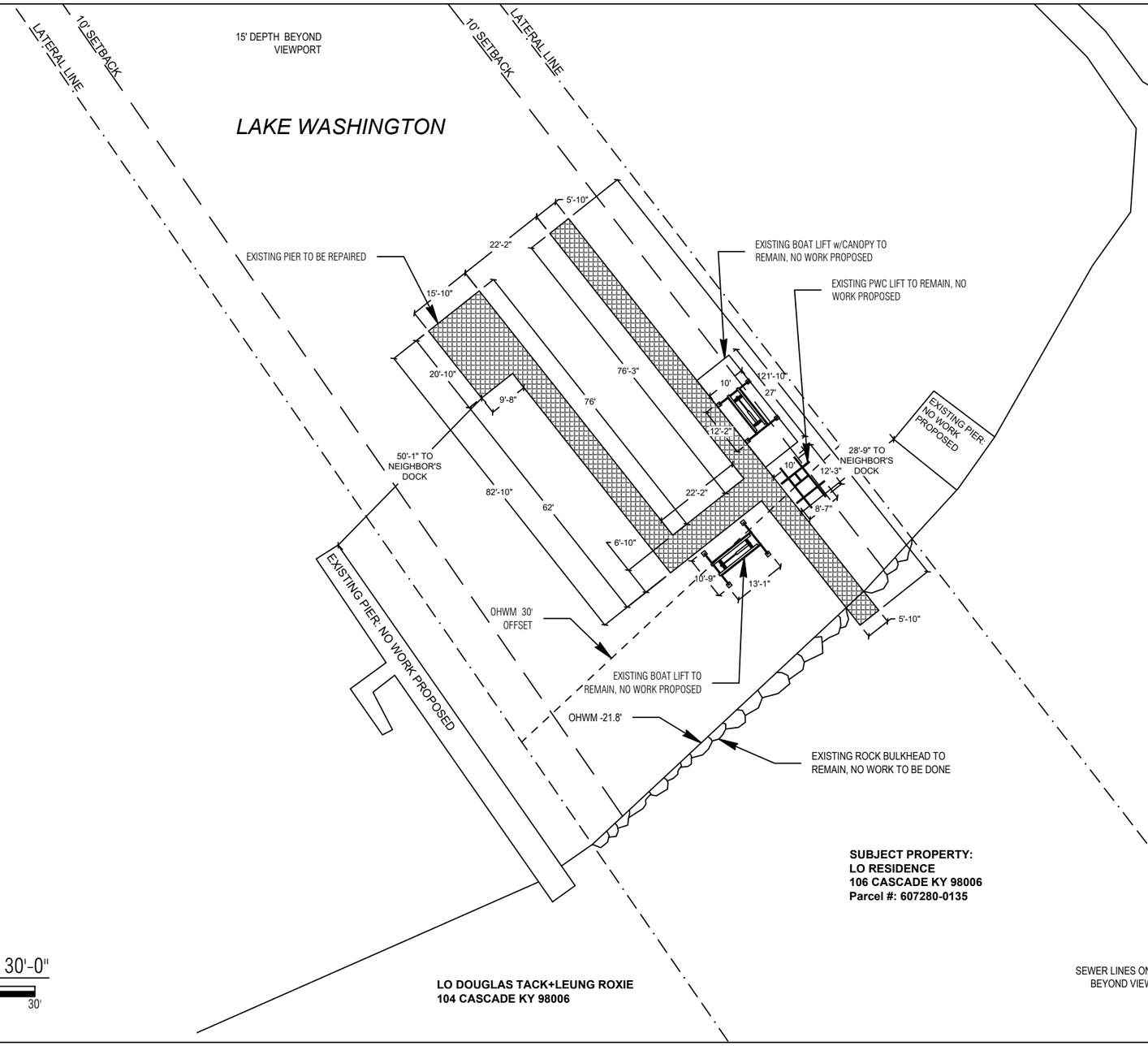
PROPOSED CONDITIONS

CLEAN UP LAKE AROUND PROJECT



SCALE: 1" = 30'-0"

0' 7.5' 15' 30'

County: King County
Location: Lake Washington

Applicant: Lo Residence
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Seattle, WA 98119

Office: 206-236-1700 ext. 3
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Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

SHEET A3.0

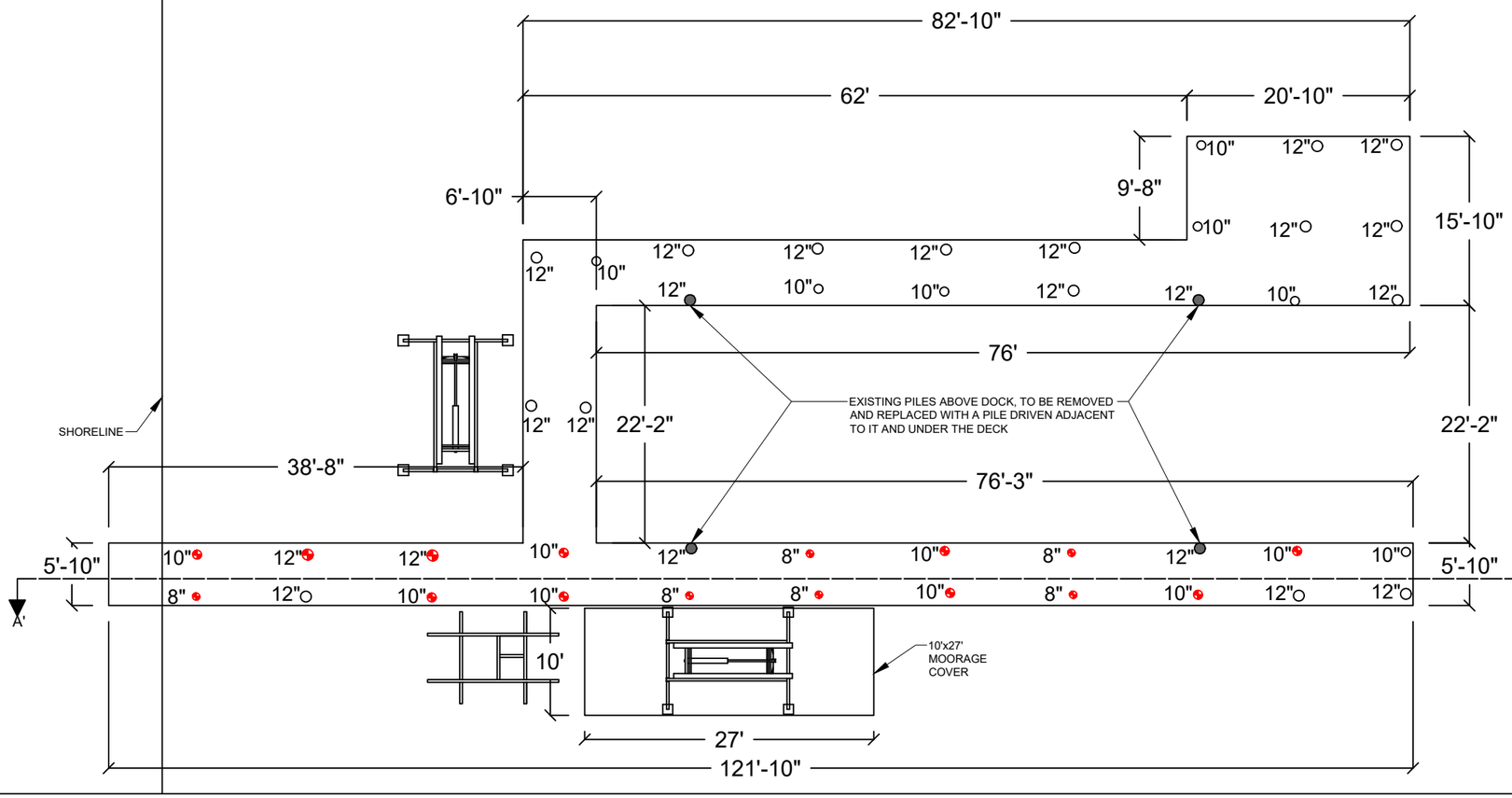
PIER DETAILS - EXISTING/PROPOSED

LEGEND

- (16) EXISTING PILES - TO BE REPAIRED
- (23) EXISTING PILES - NO WORK TO BE DONE
- (4) PROPOSED 8" STEEL PILES - TO BE ADDED

Area: 1,531 sqft (over water)
Area: 1,560 sqft (new grated decking)

**Grated decking material is 43% light permeable



PLAN VIEW

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Seaborn Pile Driving
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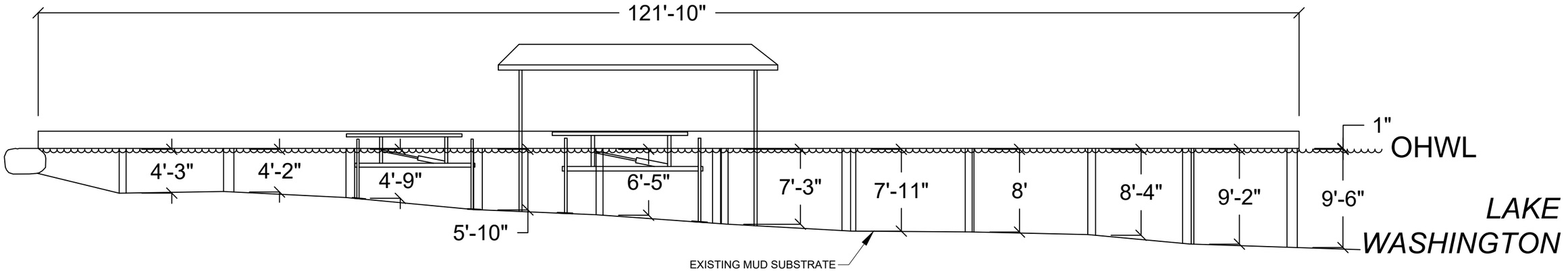
108 CASCADE KY 98006

Created: 01/11/22
Last Updated: 2/11/2022 10:55 AM Dray

SHEET A4.0

PIER DETAILS EXISTING/PROPOSED



SECTION VIEW: A'-A'

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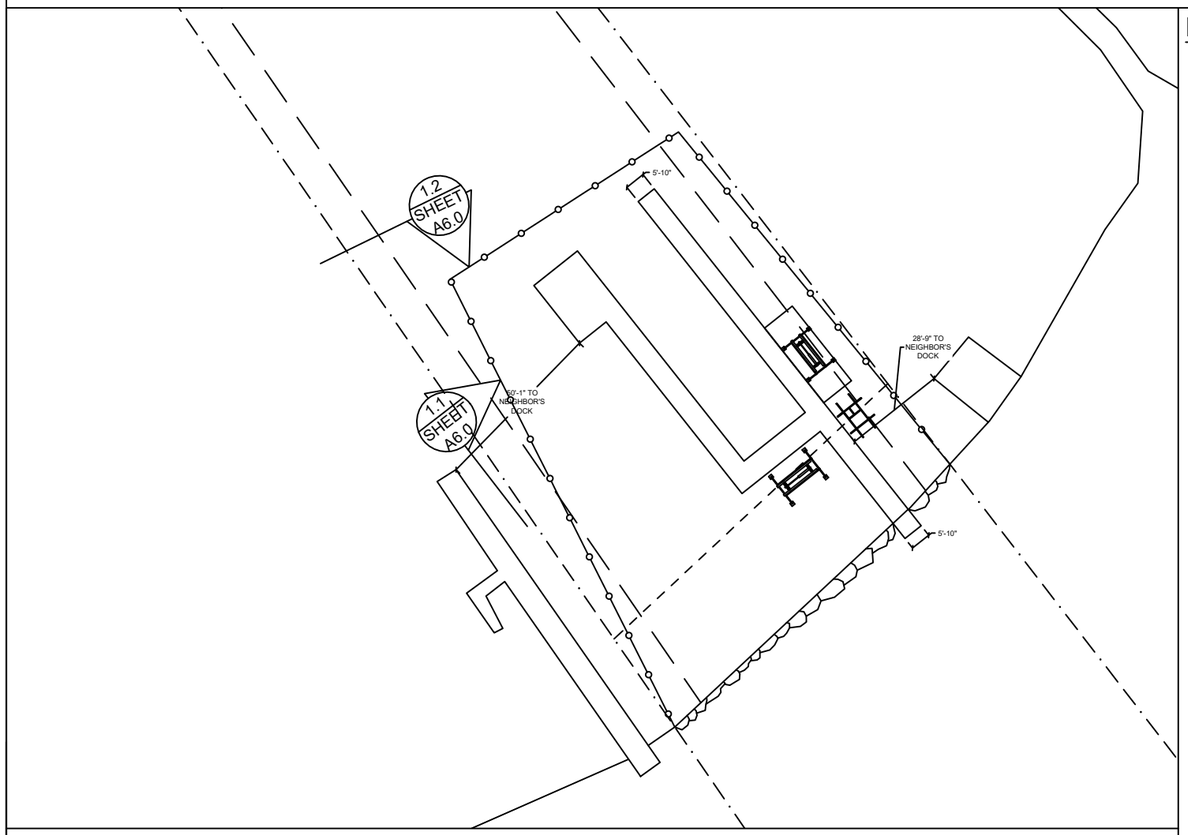
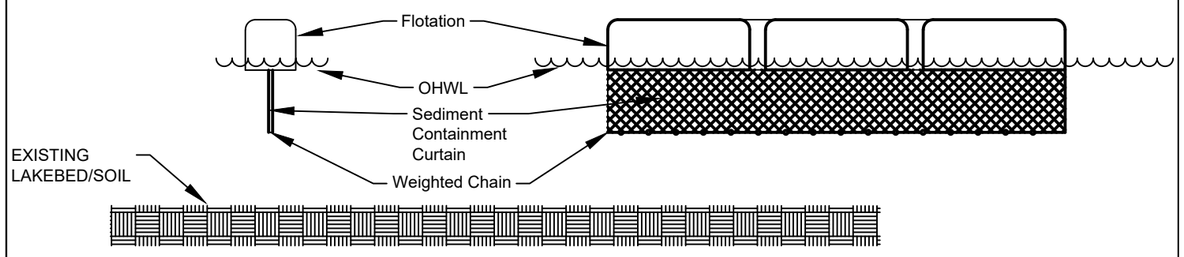
SHEET A5.0

BMP INFORMATION



DETAIL 1.1 DETAIL 1.2



DETAIL 1.1 & 1.2

BMP NOTES:

A. Constant vigilance shall be kept for the presence of protected fish species during all aspects of the proposed action, particularly during in-water activities such as vessel movement, deployment of anchors & spuds, pile driving, dredging, and placement of gravels and other fill.

1. The project manager shall designate an appropriate number of competent observers to survey the project site and adjacent areas for protected species, including the presence of fish as conditions allow.
2. Visual surveys shall be made prior to the start of work each day, and prior to resumption of work following any break of more than an hour. Periodic additional visual surveys throughout the work day are strongly recommended.
3. All in-water work shall be done during the in-water work window for the waterbody. Where there is a difference between the USCOE and WDFW work windows, the overlap of the two shall apply.
4. All pile driving and extraction shall be postponed or halted when obvious aggregations or schooling of fish are observed within 50 yards of that work, and shall only begin/resume after the animals have voluntarily departed the area.
5. When piloting vessels, vessel operators shall operate at speeds and power settings to avoid grounding vessels, and minimize substrate scour and mobilization of bottom sediments.

B. No contamination of the marine environment shall result from project-related activities.

1. Appropriate materials to contain and clean potential spills shall be stored and readily available at the work site and/or aboard project-related vessels.
2. The project manager and heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and shall not proceed until the leak is repaired and the equipment is cleaned.
3. To the greatest extent practicable, utilize biodegradable oils for equipment that would be operated in or near water.
4. Fueling of land-based vehicles and equipment shall take place at least 50 feet away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.
5. Turbidity and siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.
6. All wastes shall be collected and contained for proper disposal at approved upland disposal sites appropriate for the material(s).
7. When removing piles and other similarly treated wood, containment booms must fully enclose the work area. Wood debris, oils, and any other materials released into lake waters must be collected, removed, and properly disposed of at approved disposal sites.
8. All in- and over-water wood cutting would be limited to the minimum required to remove the subject wood component, and all cutting work should be enclosed within floating containment booms.
9. When removing piles, no actions shall be taken that would cause adhering sediments to return to lake waters.
10. Above-water containment shall be installed around removed piles to prevent sediment laden waters from returning to lake waters.
11. Construction staging (including stocking of materials, etc.) will occur on the supply barge.
12. All Exposed wood to be used on the project will be treated with a cheminite treatment.

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006

PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

BUILT BY SEABORN · ESTD 1947 ·

Seaborn Pile Driving
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Seattle, WA 98119

Office: 206-236-1700 ext. 3
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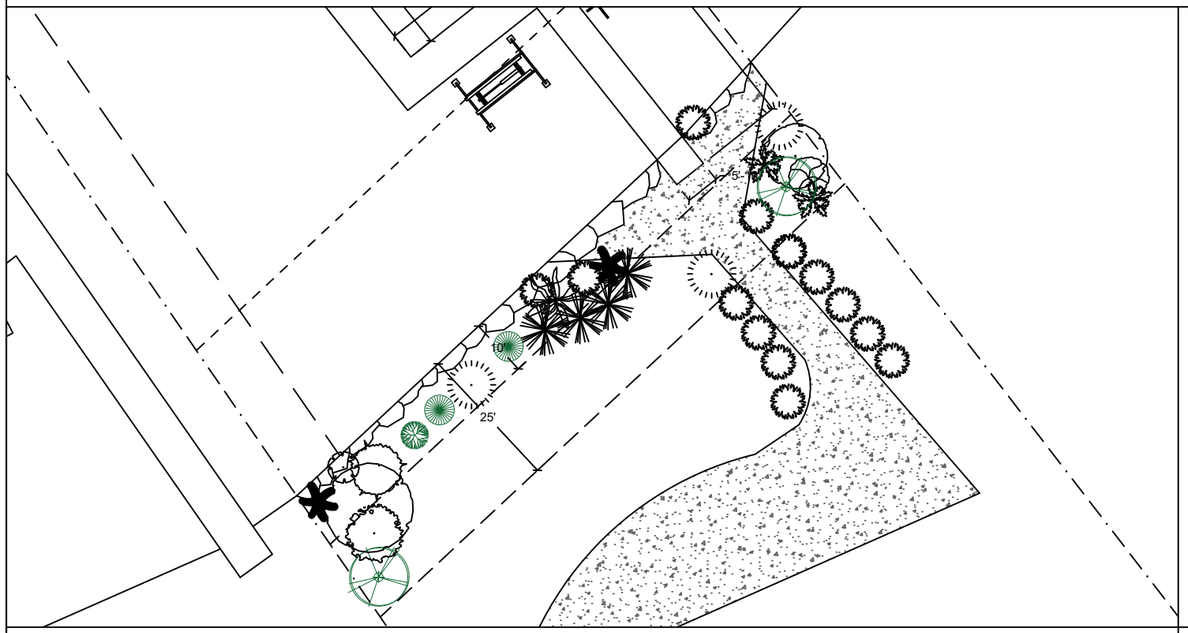
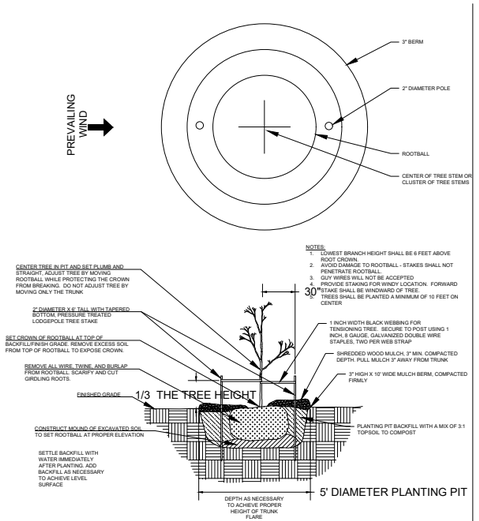
Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

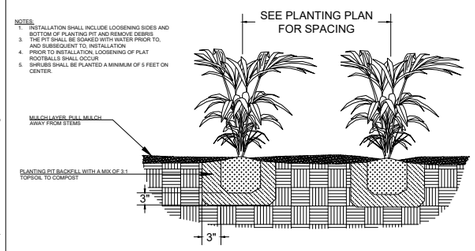
SHEET A6.0

MITIGATION PLAN





TREE PLANTING DETAILS (NTS)



SHRUB AND GROUNDCOVER PLANTING DETAILS (NTS)

Notes:

1. Shrubs are show, and shall be planted, at least five feet on center. Trees are show, and shall be planted, at least ten feet to center.
2. The property owner will implement and abide by the shoreline planting plan. The plants shall be installed before or concurrent with the work authorized by this permit. A report, as-built drawing and photographs demonstrating the plants have been installed or a report on the status of project construction will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 12 months from the date of permit issuance. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Report for Mitigation Work Completion form.
3. The property owner will maintain and monitor the survival of installed shoreline plantings for five years after the U.S. Army Corps of Engineers accepts the as-built report. Installed plants shall achieve 100% survival during monitoring Years 1 and 2. Installed plants shall achieve at least 80% survival during monitoring Years 3, 4 and 5. Percent survival is based on the total number of plants installed in accordance with the approved riparian planting plan. Individual plants that die will be replaced with native riparian species in order to meet the survival performance standards.
4. The property owner will provide annual monitoring reports for five years (Monitoring Years 1-5). Each annual monitoring report will include written and photographic documentation on plant mortality and replanting efforts and will document whether the performance standards are being met. Photos will be taken from established points and used repeatedly for each monitoring year. In addition to photos at designated points, photo documentation will include a panoramic view of the entire planting area. Submitted photos will be formatted on standard 8 1/2 x 11" paper, dated with the date the photo was taken, and clearly labeled with the direction from which the photo was taken. The photo location points will be identified on an appropriate drawing. Annual shoreline planting monitoring reports will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, by November 31 of each monitoring year. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Mitigation Planting Monitoring Report form.

PROPOSED PLANTING SPECIES/QUANTITIES

SYMBOL	LATIN NAME	COMMON NAME	QTY	SIZE
	Thuja picatta	Western Redcedar	2	3 ft
	Rosa nutkana	Nootka Rose	1	1 Gallon
	Philadelphus lewisii	Mock Orange	2	1 Gallon

PLANTS: Shrubs to be installed 5ft on center and trees to be installed 10ft on center.

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22
Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

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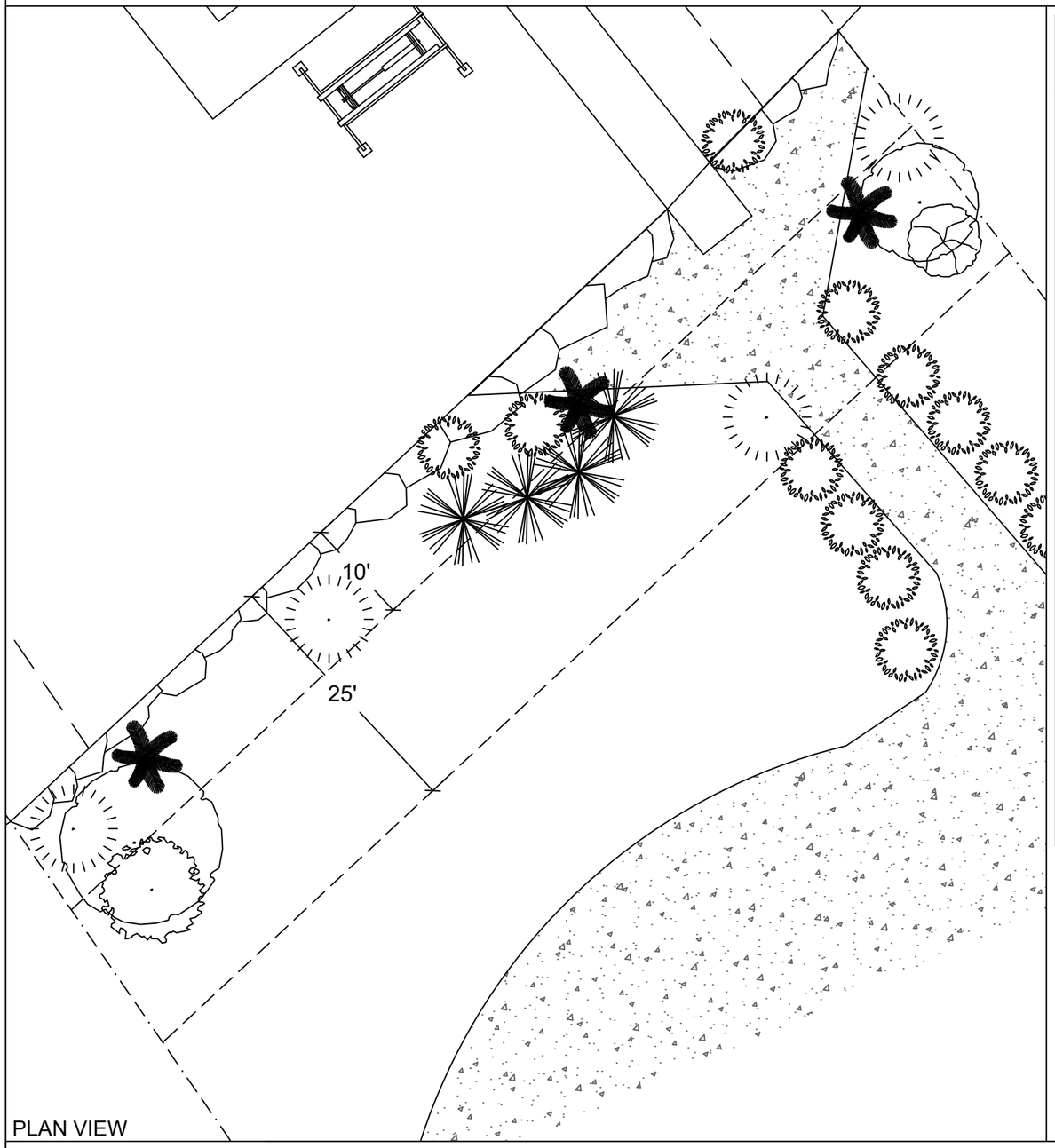
Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

EXISTING PLANT PLAN



PLAN VIEW

EXISTING PLANTING SPECIES/QUANTITIES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE
	Hydrangea macrophylla	Big leaf hydrangea	3	~5ft
	Juniperus Communis	Common Juniper	4	~4ft
	Buxus sempervirens	English Boxwood	1	~4ft
	Rumex acetosella	Garden sorrel	4	~5ft
	Calamagrostis x acutiflora	Feather Reed Grass	3	~4ft
	Laurus nobilis	Bay laurel	2	~10ft
	Pinus contorta	Shore Pine	1	~10ft

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

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SHEET A8.0

GENERAL NOTES:

MATERIALS SPEC LIST:

Boat Lifts:
* SL10014ARW - 146" x 191"
* SL8012ARW - 146" x 167"
* SL2008AR2D2 - 104" x 132"

Decking Material: FRPP - Fiberglass reinforced polypropylene
Light permeable percentage:
* Surface - 43%
* 18" Dock Height - 61%

PILES:
* All new piles are epoxy coated steel piles *size varies, see plan set
* Repair piles are done as a sleeve/strap method
* Piles are driven using the vibro method

DOCK: being repaired/replaced
* _100_ % of Decking
* _100_ % of stringers
* _100_ % of caps

CODE REFERENCES: BELLEVUE

We are applying for the permit to be reviewed under the:
"20.25E.065(H)(5)"

Last permit issued for property:
Dock established/constructed: date

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
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Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

SHEET A9.0

DETAILS - REPAIR

S1 DETAIL NOT IN USE

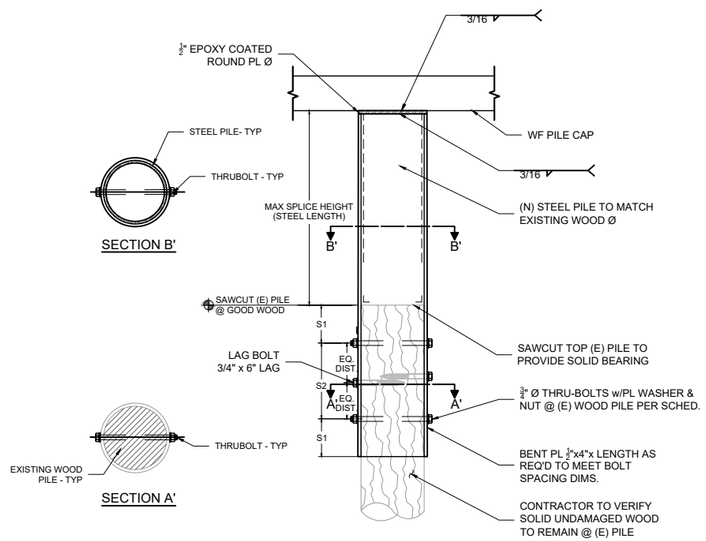
S2 DETAIL NOT IN USE

S3 DETAIL NOT IN USE

S4 DETAIL NOT IN USE

STEEL SLEEVE TABLE				
PILE Ø	MAX SPLICE HEIGHT	S1	S2	S3
9"	15"	6"	12"	3"
12"+	28"	6"	12"	3"

NOTES:
1) MAX PILE LOAD = 1,200 # / PILE (BOAT LOAD PARALLEL TO DOCK).
   CONTACT ENGINEERING IF BOAT SIZE EXCEEDS GENERAL NOTES MAXIMUM ALLOWABLE.
2) MINIMUM BOLT SPACING = 3"
3) STRAP AXIS SHALL BE ORIENTED PERPENDICULAR TO LONGITUDINAL AXIS OF DOCK.



S5 SPLICE PILE REPAIR - TYP
SCALE: 1/2" - 1'

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County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

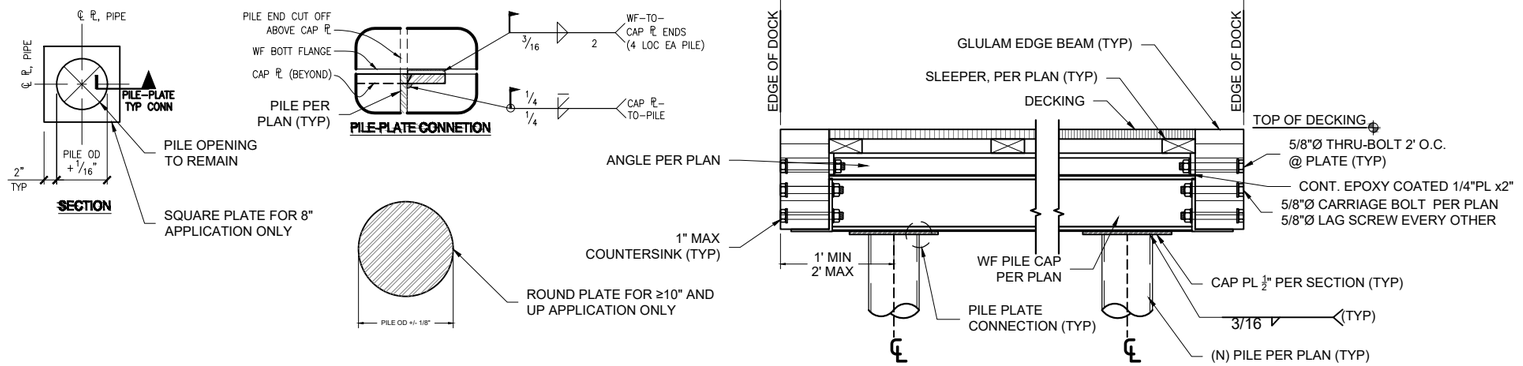
Created: 01/11/22
Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

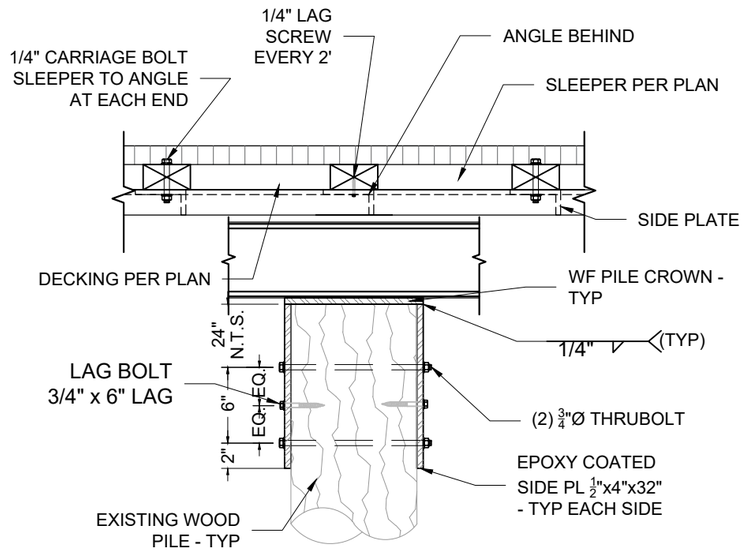
Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

SHEET A10.0

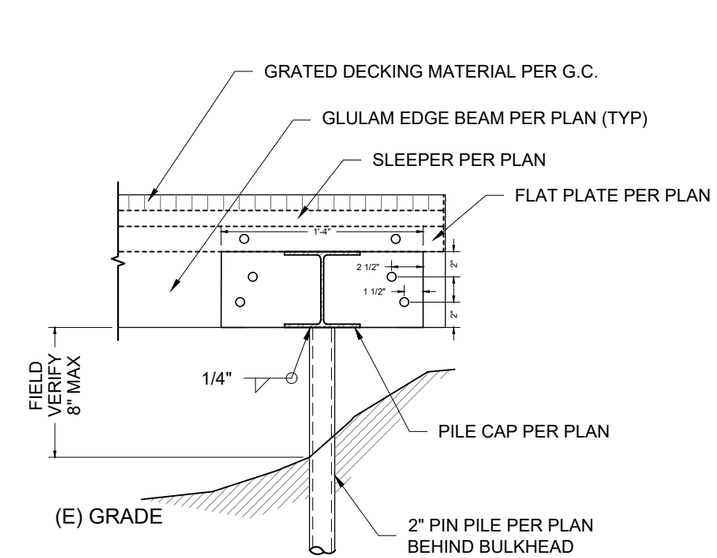
DETAILS - TRACK



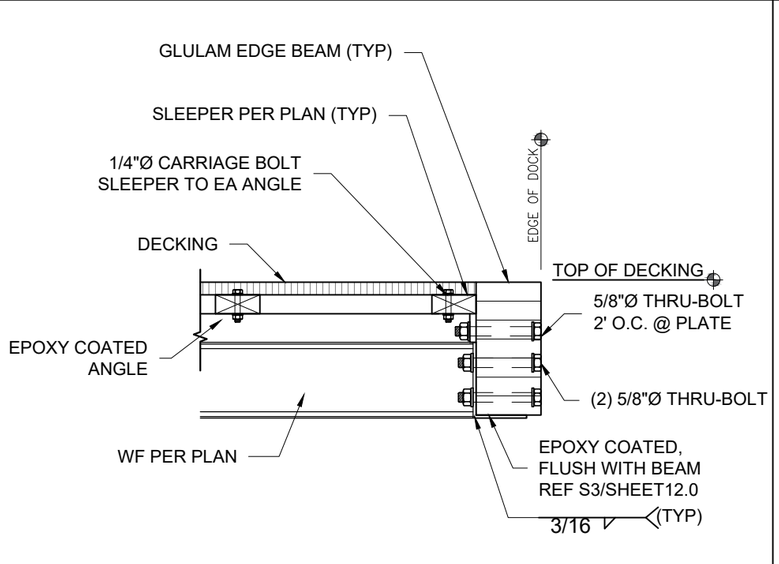
S1 DOCK SECTION w/PILES - TYP
SCALE: 1" - 1'



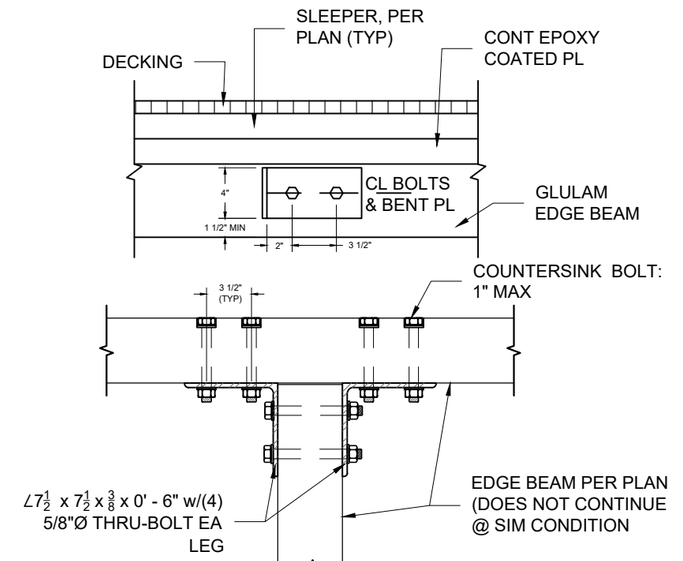
S3 I-BEAM CAP TO WOOD PILE - TYP
SCALE: 1" - 1'



S4 PIN PILE @SHORE MOUNT - TYP
SCALE: 1" - 1'



S5 EDGE SECTION (STEEL TRACK) - TYP
SCALE: 1" - 1'



S6 BEAM TO BEAM - TYP
SCALE: 1" - 1'

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Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/15/2022 4:51 PM Dray

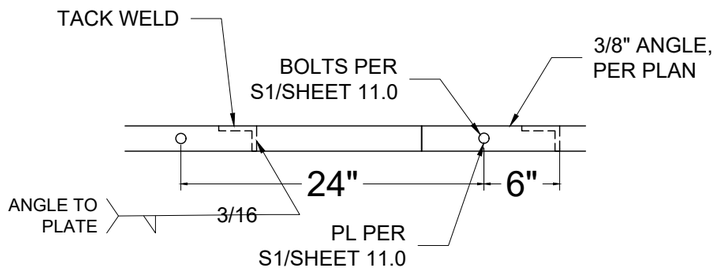
Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

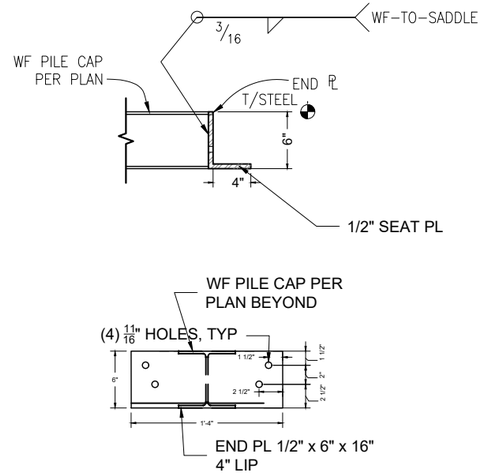
SHEET 11.0

DETAILS - TRACK

S1 DETAIL NOT IN USE



S2 ANGLE TO PLATE - TYP
SCALE: 1" - 1'



S3 BEAM SADDLE BRACKET
SCALE: 3/4" - 1'

S4 DETAIL NOT IN USE

S5 DETAIL NOT IN USE

S6 DETAIL NOT IN USE

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
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104 CASCADE KY 98006
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

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SHEET 12.0

Ecological No Net Loss Assessment Report

Prepared for

Doug Lo
106 Cascade Key
Bellevue, WA 98006

Prepared by

Northwest
Environmental Consulting, LLC

Northwest Environmental Consulting, LLC
600 N 36th Street, Suite 423
Seattle, WA 98103
206-234-2520

March 2022

Purpose

The purpose of this report is to fulfill the requirements of City of Bellevue Land Use Code (LUC) 20.25E.060 for General requirements applicable to all shoreline development and uses by assessing overall project impacts and proposed mitigation to determine if the project meets the "No Net Loss" standard.

No net loss incorporates the following concepts:

- The existing condition of shoreline ecological functions should not deteriorate due to permitted development. The existing condition or baseline is documented in the shoreline inventory and characterization. Shoreline functions may improve through shoreline restoration.
- New adverse impacts to the shoreline environment that result from planned development should be avoided. When this is not possible, impacts should be minimized through mitigation sequencing.
- Mitigation for development projects alone cannot prevent all cumulative adverse impacts to the shoreline environment, so restoration is also needed.

Permits are being applied for a dock repair.

Location

The subject property is located at 106 Cascade Key (King County parcel number 6072800135) in the City of Bellevue, Washington (see Appendix A – Sheet A1.0). The parcel is on the waterfront of Lake Washington that contains several endangered fish species listed under the Endangered Species Act and Washington State designated priority fish species.

Project Description

The proposed work includes removing all existing decking material and replacing with ThruFlow grated decking.

The work includes repairing 16 existing timber piles by the sleeve/strapping method. Four existing 12-inch timber piles will be removed and replaced with 4 8-inch epoxy coated steel piles using a vibratory hammer. See Appendix A - Sheet A2.0 to Sheet A5.0 for additional information.

During construction, a floating boom will surround the work barge and work area. See Appendix A – Sheet A6.0 for additional information.

A shoreline vegetation planting plan is proposed (see Appendix A – Sheet A6.0 – A7.0).

Project drawings are included in Attachment A.

Approach

Northwest Environmental Consulting LLC (NWEC) biologist Brad Thiele conducted a site visit on February 23, 2022 to evaluate conditions on site and adjacent to the site. NWEC also consulted the following sources for information on potential critical fish and wildlife habitat along this shoreline:

- Washington Department of Fish and Wildlife (WDFW): Priority Habitats and Species online database (http://apps.wdfw.wa.gov/phsontheweb/)

- WDFW SalmonScape online database of fish distribution and ESA listing units (https://apps.wdfw.wa.gov/salmonscape/)

Site Description

The subject property is shoreline tract in a residential neighborhood. It has shoreline on its western boundary with single-family homes to the north and south.

The only existing structures on the property are the house and the existing dock. The shoreline is armored with a rock bulkhead. The shoreline is planted with ornamental shrubs along the shoreline with lawn and walkways. (Photos 1 through 7).

The substrate of the lake is sand with some gravel. No milfoil was noted at the time of the visit. No other aquatic vegetation was observed during the site visit.

The property to the north has a similar shoreline with a rock bulkhead and mostly lawn and some ornamental vegetation planted along the bulkhead. The property to the south has a similar shoreline with some mature trees. A rock spit is present on the north property.

Species Use

WDFW's PHS mapping and SalmonScape mapping tools show the following salmonid species using Lake Washington for migration and/or rearing: residential coastal cutthroat (*Oncorhynchus clarkii*), winter steelhead (*O. mykiss*), Dolly Varden/bull trout (*Salvelinus malma*), sockeye salmon (*O. nerka*), fall Chinook (*O. tshawytscha*), coho salmon (*O. kisutch*), and kokanee (*O. nerka*). The SalmonScape database maps the site as accessible to the Endangered Species Units (ESU) of Threatened Chinook and steelhead.

The nearest stream mapped salmonid bearing stream is Coal Creek, about 570 feet to the north is modeled by Washington Department of Fish and Wildlife (WDFW) for rearing of non-listed Coho salmon, sockeye salmon, coastal cutthroat trout and listed Steelhead and Fall Chinook. The shoreline is not mapped as a Sockeye spawning area by WDFW and no sockeye spawning areas are within 1,000 feet of the site. Juveniles may rear in the waters near the project when traveling from spawning sites on other lake tributaries to the lake's outlet at the Locks. The project site is accessible to any fish migrating or rearing in the lake. Mercer Slough is located about 1,800 feet to the north of the project.

No other priority habitats are associated with the project site for aquatic or terrestrial species besides Lake Washington.

Project Impacts and Conservation Measurements

Direct Impacts:

Sediments: Sediment disturbance will occur below the OHWM and along the shoreline of Lake Washington during pile driving, removal, and repair. Additionally, the tug and barge propwash may disturb sediments temporarily when making trips to/from the site.

Sediments are expected to be minimally disturbed during pile driving and the coarse sediments (sand and cobbles) found at the site will lessen the chances of fine sediments becoming suspended. In addition, a floating boom surrounding the work area to contain floating debris will be used during construction (see BMP Notes on Sheet A6.0 in Appendix A). The project is expected to meet state water quality standards for turbidity.

Shoreline: Planting native vegetation will increase the habitat functions of the shoreline by creating shade along the shoreline that will be an improvement from the existing baseline habitat conditions at the project site. These plants will provide overhanging cover for fish, structural diversity for birds and wildlife, detritus for aquatic invertebrates and long-term recruitment of woody material and other allochthonous food sources. The proposed planting plan is included (see Appendix A - Sheet A6.0 – 7.0). No shoreline work except for planting is proposed.

Lakebed: Repairing pilings will not change the lakebed coverage. Removing 4 12-inch pilings and replacing with 4 8-inch pilings will restore 1.7 square feet of lakebed.

Noise: Construction equipment will create noise audible to neighbors and in-water. Noise disturbance will be short-term and should have negligible effects on fish and wildlife in the area. Work will be completed during the in-water work window when juvenile fish are not expected to be present. A vibratory hammer will be used to install the 8-inch steel piles and no proofing of piles is proposed. Work will be completed during the fish window when juvenile fish are not generally present.

Potential spills: Short-term risks include the potential for petroleum spills that can occur with any equipment operation. The level of impact to the aquatic environment is expected to be minor because of spill containment measures that will be employed should a spill occur (see BMP Notes on Sheet A6.0 in Appendix A).

Indirect Impacts:

Shading: The proposed repairs will not change the overwater coverage from the dock. The existing solid wood decking will be replaced with grated ThruFlow decking.

Grated decking allows additional light to penetrate the water below a dock that can increase productivity in the littoral zone below the dock, and reduce the full shade favored by salmonid predators. Salmonid predators are known to use hard shadowing under solid-decked docks to ambush juvenile salmonids. Reducing these hard shadows limits their preferred habitat under the dock.

ThruFlow grated decking has measured performance at 43 percent light penetration (ThruFlow, 2020). Thus, effective cover of the area is 57% of the area of a solid decked structure. Table 1 provides a summary of effective coverage:

Table 1 – Effective coverage

	Existing	Proposed grated	Conversion	Effective coverage	Reduction in coverage
Deck Repaired (SF)	1,531	1,531	0.57	873	658

The use of grated decking reduces the existing effective overwater coverage by 658 square feet.

Overwater cover may cause outmigrating juvenile salmonids to hesitate before moving under an existing dock. Switching to grated decking may reduce this hesitation and increase outmigration times of juvenile salmonids.

Recreational Boating: The project supports continued recreational boating, which has been identified as a limiting factor for salmonid populations in Lake Washington. The pier reconfiguration will not introduce additional boating to Lake Washington, as the owners could still access the lake from a public boat launch or private moorage facility.

Other Conservation measures:

Work window: The work will be completed during the prescribed in-water work window for this area of Lake Washington (July 16 to December 31). Operating within this time frame helps protect Chinook salmon, steelhead, bull trout and other salmonid fish species by doing work when juvenile fish are not expected to be present.

Best Management Practices: Applicable BMPs will be used, such as a floating boom around the in-water work area, to contain any floating debris that may escape during construction (see BMP Notes on Sheet A6.0 in Appendix A). The barge will have a perimeter containment sock to absorb oil and grease that might inadvertently wash from the barge during construction.

Hazardous containment materials such as spill absorbent pads and trained personnel will be required onsite during any phase of construction where machinery is in operation near surface waters.

In-lieu Fee: The shoreline on the subject property will be planted with native, overhanging vegetation and additional mitigation planting is not possible. The project also requires approval from the National Marine Fisheries Service (NMFS). NMFS has developed a calculator to determine appropriate mitigation costs for proposed in-water structures in Lake Washington. This calculator has established a fund that owners can pay into if they are not willing or cannot find mitigation to offset impacts from the project. The owner is not able to complete enough required mitigation at the subject property to meet RAP requirement and the property owner will pay into the in-lieu fee program to mitigate project impacts as well as the shoreline planting plan. An in-lieu fee program is defined as follows:

> "A program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements... Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor." (Fed. Reg. 40 CFR Part 230)

The fee has been determined using the Restoration And Permitting (RAP) Calculator for Lake Washington and will be paid to King County Conservation Fund.

IMPACT MINIMIZATION AND MITIGATION

Reasonable efforts were made to apply mitigation sequencing when affecting habitats within critical areas, as required by City Code LUC 20.25E.060.D.2. This sequence has three steps: avoidance, minimization, and mitigation.

Avoidance and Minimization

Complete avoidance of impacts to the Lake Washington are not possible as the work takes place within the aquatic habitat. The dock repairs use BMPs and construction techniques to minimize impacts to the aquatic habitat. The minimization techniques include the use of grated decking and using the smallest pile size possible for replaced piles. In addition repairing the existing pilings also reduces impacts during construction over full replacement.

Mitigation Approach

Mitigation will be provided by a shoreline planting plan along the shoreline. The City of Bellevue considers native plantings within 10 feet of the shoreline to be mitigation for impacts to the shoreline. The existing dock and new deck will use grated decking to reduce effective overwater coverage. In addition, the owner has opted to pay the required in-lieu fee to King County to complete the mitigation requirements as required by the National Marine Fisheries Service using the RAP process.

Shoreline Functions and Values Improvements

Installing plantings will increase habitat diversity in this area and will contribute beneficial nutrients to the nearshore environment. The grated decking may improve juvenile salmonid migration times and reduce habitat for predatory fish at the site.

The in-lieu fee will be used for conservation projects within King County improving watershed conditions.

Proposed Mitigation

Mitigation Goals

The mitigation goals for the project will include the following:

- Using grated decking on existing decked surfaces and paying into the King County In Lieu Fee Program.
- Planting shoreline native plants including 2 native trees and 3 native shrubs.

Performance Standards

The performance standards include using grated decking on the dock and paying into the in lieu fee program. These performance standards will be complete upon completion of the project.

Buffer plantings shall maintain a 100% survival for the 5 years. For proper functioning, species diversity will be maintained. The planting areas will maintain a minimum of 2 native tree species and 3 native shrub species for the 5-year monitoring period.

Maintenance and Monitoring Program

No Maintenance or monitoring of the performance is required for the dock.

To ensure that the performance standards are met, plantings will be counted in August or September for survival for five years. All dead plantings will be replaced with similar native plants so that 100% survival is reached for the monitoring period.

Conclusion

Juvenile Chinook salmon, and other salmonids, rear and migrate along the Lake Washington shoreline.

The new decking material will reduce the effective cover of the dock by 658 square feet. The grated decking will allow light penetration into the littoral zone of the lake and reduce the preferred habitat of salmonid predatory fish and will help prevent increases in salmonid outmigration times.

The new replacement pilings will be 8-inch steel epoxy coated piles that will restore 1.7 square feet of lakebed.

The shoreline planting plan includes the addition of 2 native trees species and 3 native shrubs. These plantings will provide overhanging vegetation and woody material recruitment. In addition natural shoreline shading reduces summertime heating of the water and will improve water quality at the site once the trees mature.

The owner is paying into an in-lieu fee program that will be used for habitat projects by King County.

The project will minimize construction effects on the environment by following the prescribed fish window and using applicable BMPs to prevent construction spills and debris from escaping the area.

This project has been designed to meet current residential dock standards and will use Best Management Practices to reduce project impacts. The conservation measures are designed to improve ecological functions or prevent further degradation of habitat **and will result in No Net Loss of ecological functions** from the proposed dock repairs.

Document Preparers

Brad Thiele	Biologist	28 years of experience	Northwest Environmental Consulting, LLC. (NWEC)

NWEC followed standard acceptable field methods and protocols at the time work was performed. These standards may include delineation of wetland and stream boundaries, characterization, rating, functional analyses, impact assessments and mitigation of impacts. The conclusions and findings in this report are based on field observations and measurements and represent our best professional judgment and to some extent rely on other professional service firms and available site information. Within the limitations of project scope, budget, and seasonal variations, we believe the information provided herein is accurate and true to the best of our knowledge. Northwest Environmental Consulting does not warrant any assumptions or

conclusions not expressly made in this report or based on information or analyses other than what is included herein.

REFERENCES

ThruFlow. 2020. Legacy Series. Online. Accessed August 2020 at https://thruflow.com/products/legacy/.

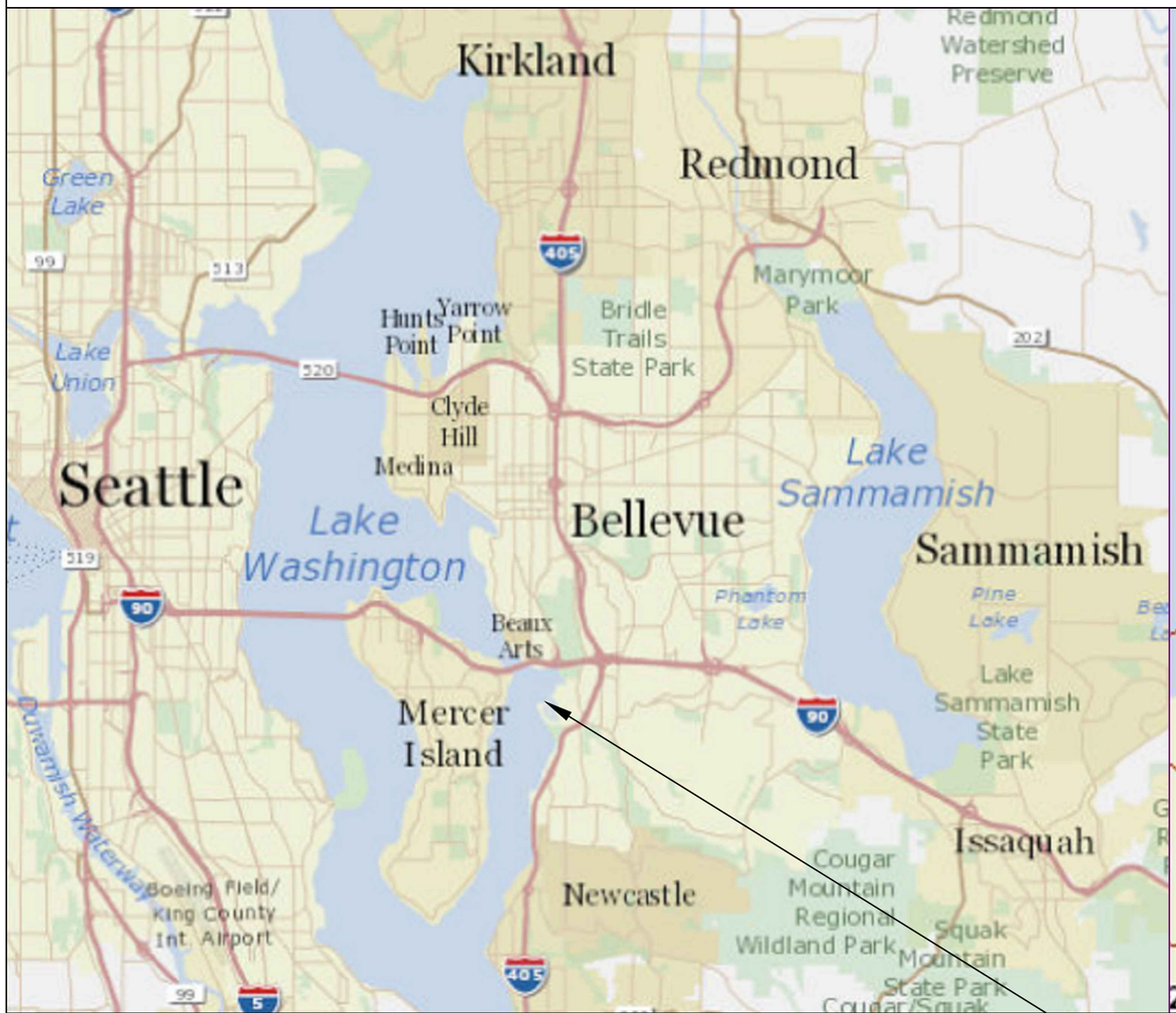
US Army Corps of Engineers (USACE). 2004. Final Biological Evaluation, Regional General Permit: Construction of New or Expansion of Existing Residential Overwater Structures and Driving of Moorage Piling. Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal, in the State of Washington.

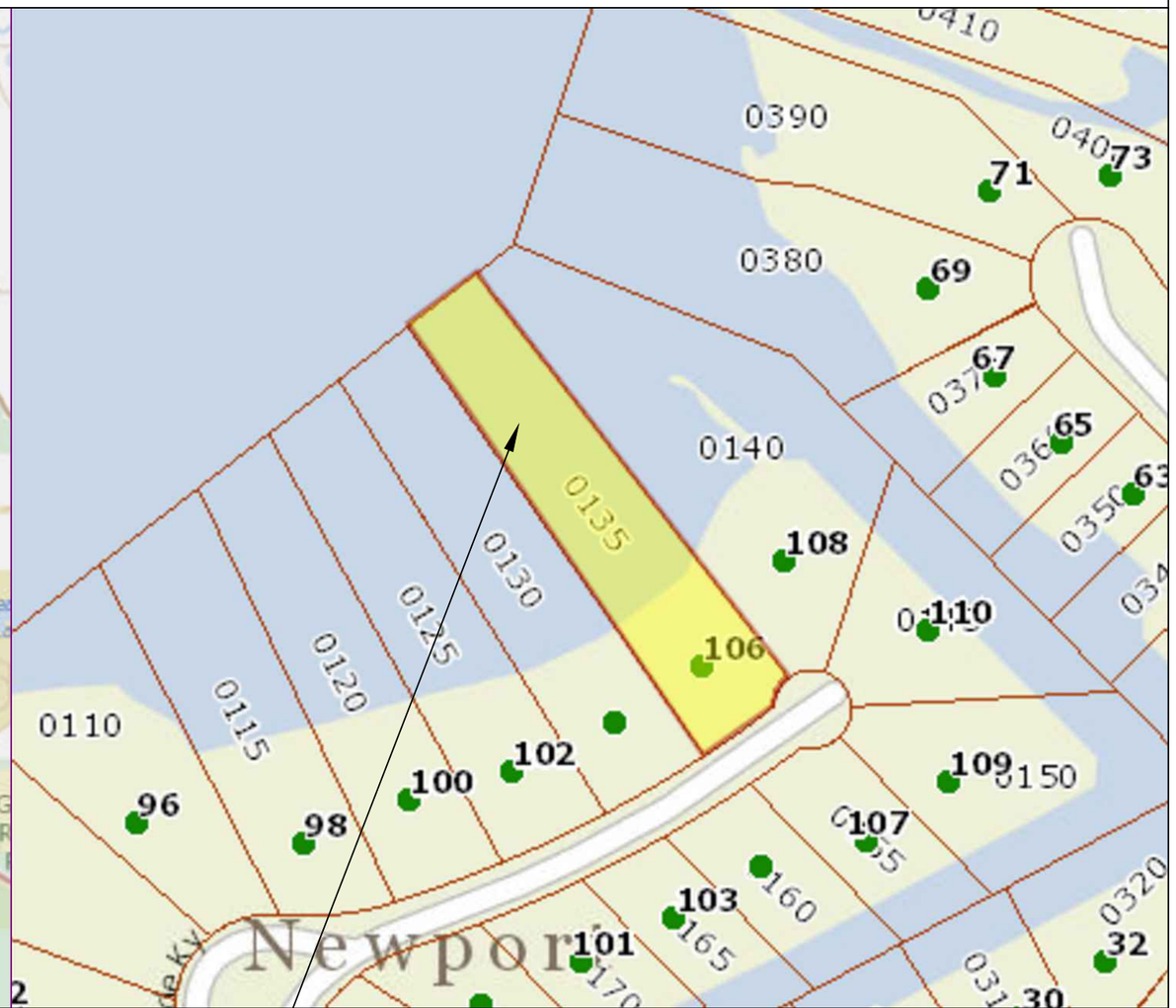
Washington Department of Fish and Wildlife (WDFW). 2022. Priority Habitats and Species. Online database. Accessed March 2022 at http://apps.wdfw.wa.gov/phsontheweb/

WDFW. 2022. SalmonScape. Online database. Accessed March 2022 at http://apps.wdfw.wa.gov/salmonscape/

Appendix A:
Project Drawings

SITE PLAN





SUBJECT PROPERTY

Pin: 607280-0135

Legal Description: NEWPORT REVISED DIV # 1

Plat Block:
Plat Lot: 27

LAT: 47.57205 LONG: -122.19164

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Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006

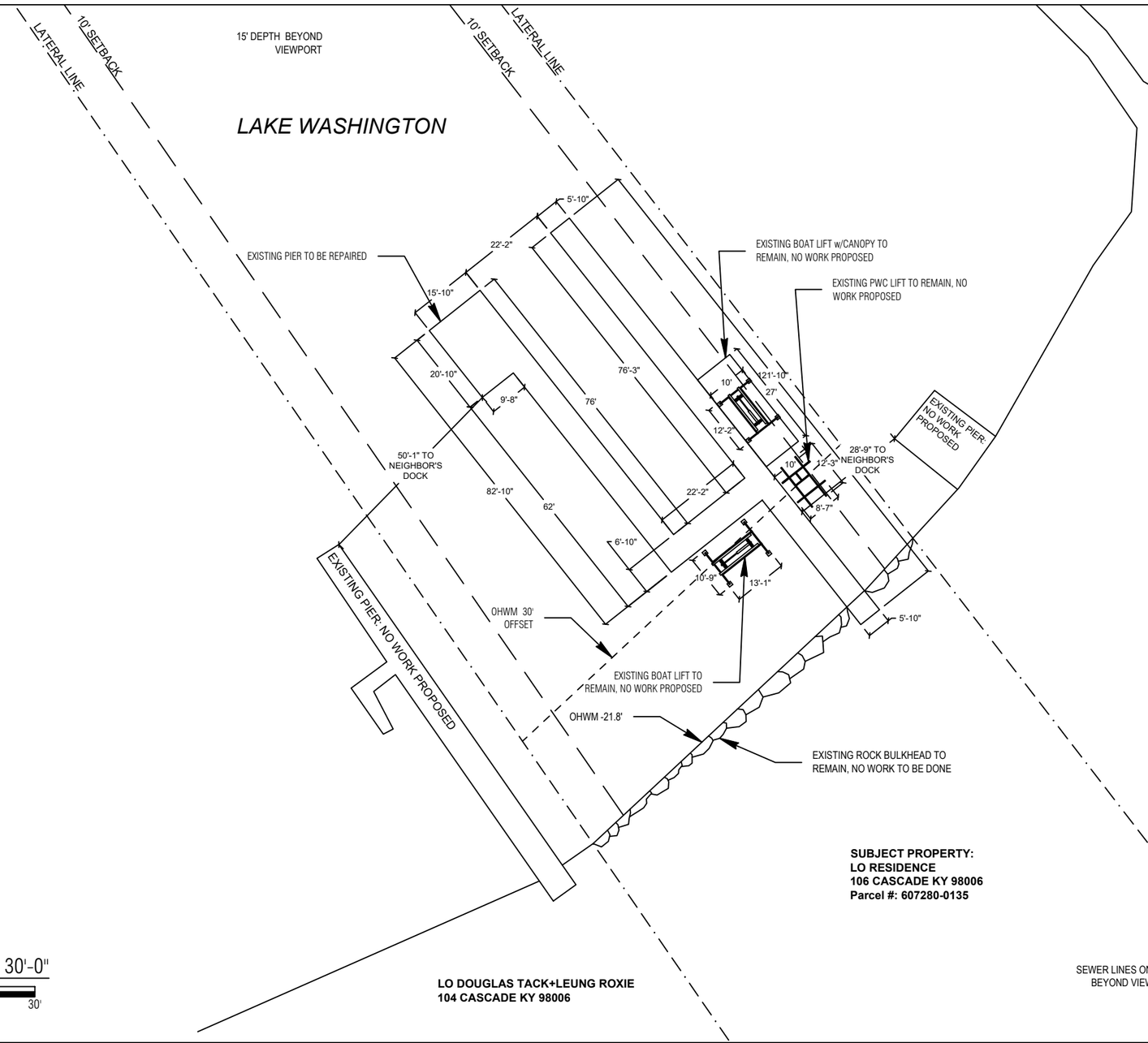
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

SHEET A1.0

NWS-2021-XXX
PAGE 1 OF 12

EXISTING CONDITIONS

CLEAN UP LAKE AROUND PROJECT



SCALE: 1" = 30'-0"

0' 7.5' 15' 30'

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Location: Lake Washington

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Created: 01/11/22

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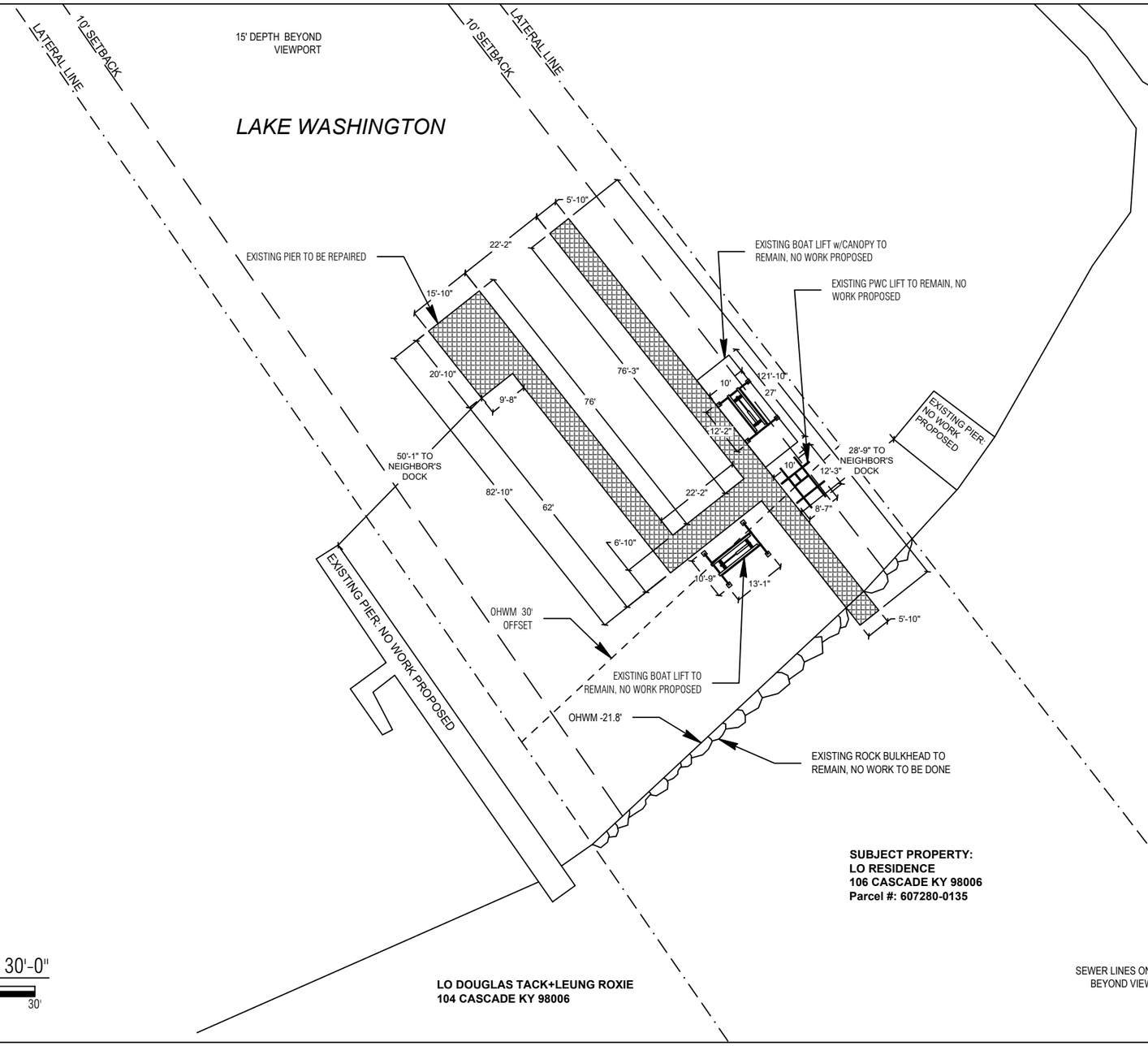
SHEET A2.0

PROPOSED CONDITIONS

CLEAN UP LAKE AROUND PROJECT



SCALE: 1" = 30'-0"

0' 7.5' 15' 30'

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SHEET A3.0

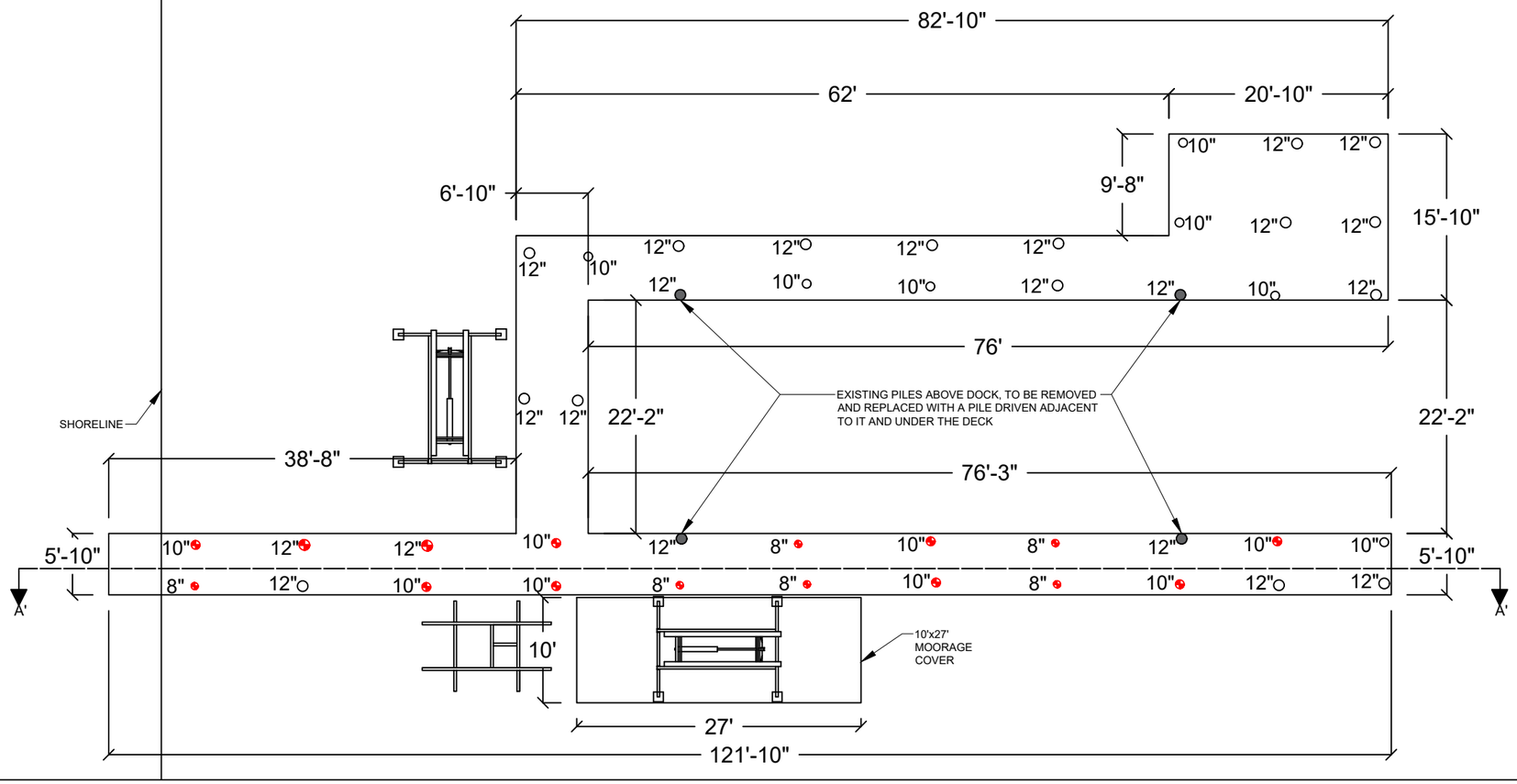
PIER DETAILS - EXISTING/PROPOSED

LEGEND

- (16) EXISTING PILES - TO BE REPAIRED
- (23) EXISTING PILES - NO WORK TO BE DONE
- (4) PROPOSED 8" STEEL PILES - TO BE ADDED

Area: 1,531 sqft (over water)
Area: 1,560 sqft (new grated decking)

**Grated decking material is 43% light permeable



PLAN VIEW

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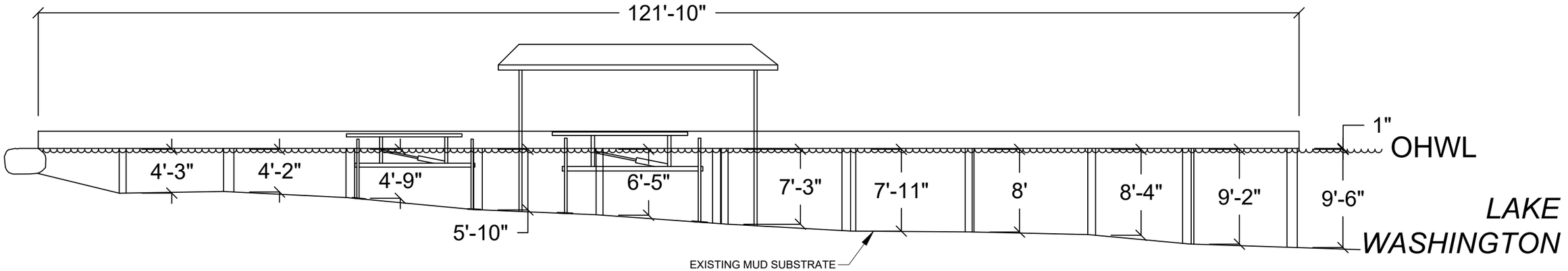
PIER DETAILS EXISTING/PROPOSED



SECTION VIEW: A'-A'

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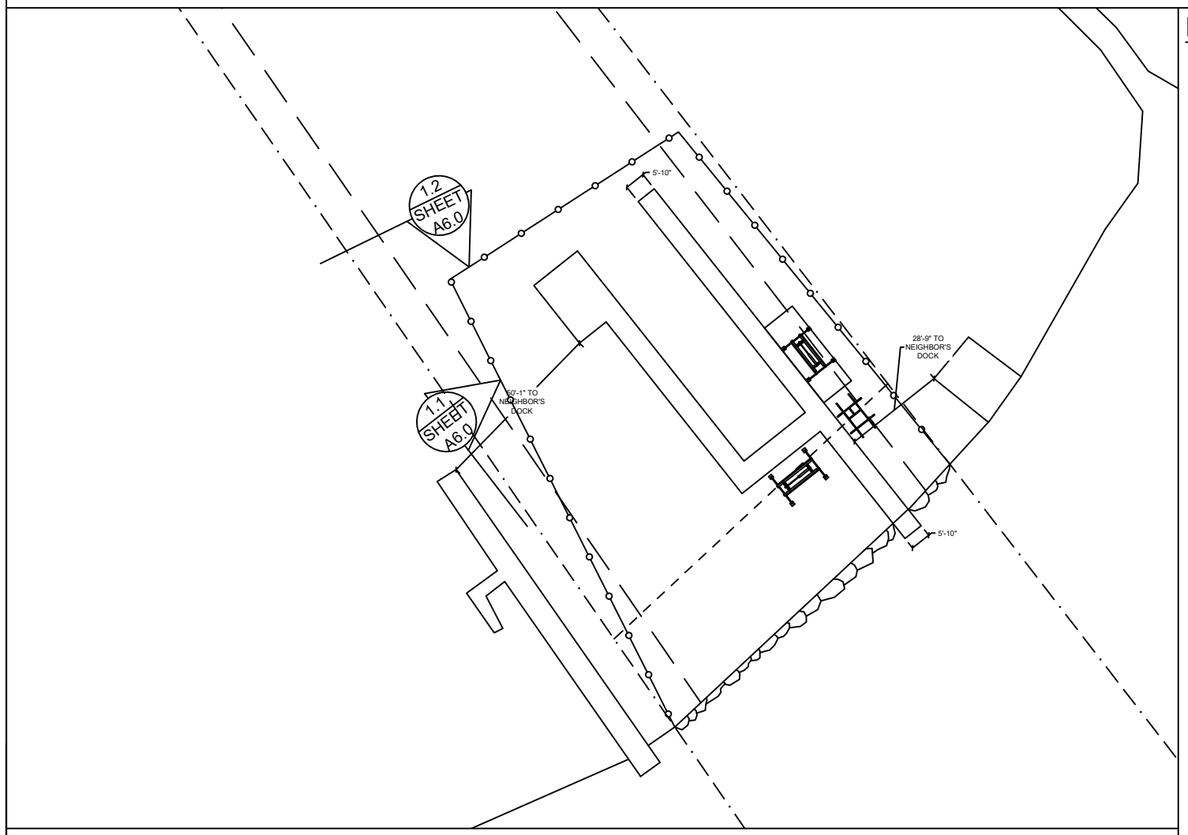
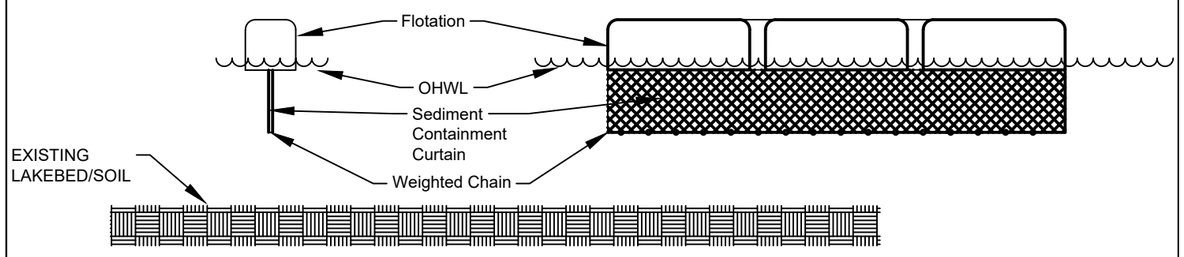
SHEET A5.0

BMP INFORMATION



DETAIL 1.1 DETAIL 1.2



DETAIL 1.1 & 1.2

BMP NOTES:

A. Constant vigilance shall be kept for the presence of protected fish species during all aspects of the proposed action, particularly during in-water activities such as vessel movement, deployment of anchors & spuds, pile driving, dredging, and placement of gravels and other fill.

1. The project manager shall designate an appropriate number of competent observers to survey the project site and adjacent areas for protected species, including the presence of fish as conditions allow.
2. Visual surveys shall be made prior to the start of work each day, and prior to resumption of work following any break of more than an hour. Periodic additional visual surveys throughout the work day are strongly recommended.
3. All in-water work shall be done during the in-water work window for the waterbody. Where there is a difference between the USCOE and WDFW work windows, the overlap of the two shall apply.
4. All pile driving and extraction shall be postponed or halted when obvious aggregations or schooling of fish are observed within 50 yards of that work, and shall only begin/resume after the animals have voluntarily departed the area.
5. When piloting vessels, vessel operators shall operate at speeds and power settings to avoid grounding vessels, and minimize substrate scour and mobilization of bottom sediments.

B. No contamination of the marine environment shall result from project-related activities.

1. Appropriate materials to contain and clean potential spills shall be stored and readily available at the work site and/or aboard project-related vessels.
2. The project manager and heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and shall not proceed until the leak is repaired and the equipment is cleaned.
3. To the greatest extent practicable, utilize biodegradable oils for equipment that would be operated in or near water.
4. Fueling of land-based vehicles and equipment shall take place at least 50 feet away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities.
5. Turbidity and siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.
6. All wastes shall be collected and contained for proper disposal at approved upland disposal sites appropriate for the material(s).
7. When removing piles and other similarly treated wood, containment booms must fully enclose the work area. Wood debris, oils, and any other materials released into lake waters must be collected, removed, and properly disposed of at approved disposal sites.
8. All in- and over-water wood cutting would be limited to the minimum required to remove the subject wood component, and all cutting work should be enclosed within floating containment booms.
9. When removing piles, no actions shall be taken that would cause adhering sediments to return to lake waters.
10. Above-water containment shall be installed around removed piles to prevent sediment laden waters from returning to lake waters.
11. Construction staging (including stocking of materials, etc.) will occur on the supply barge.
12. All Exposed wood to be used on the project will be treated with a cheminite treatment.

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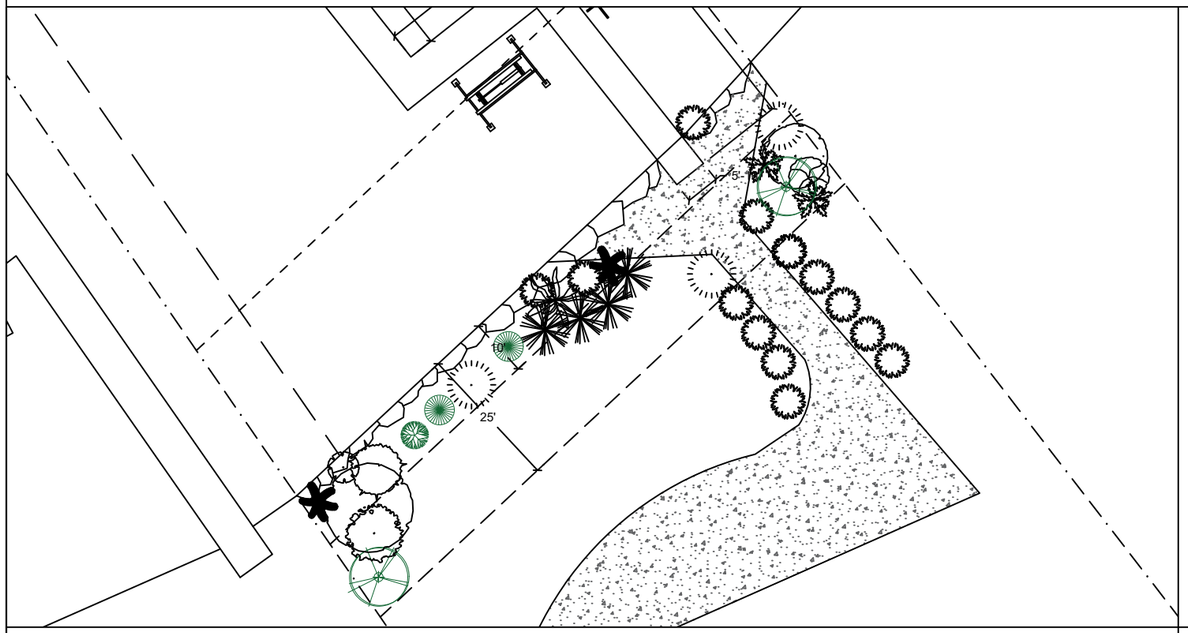
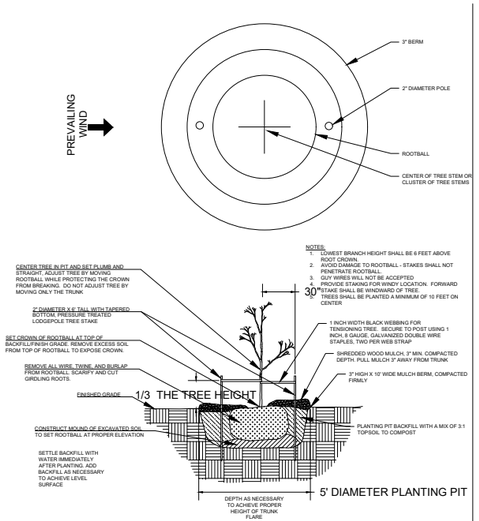
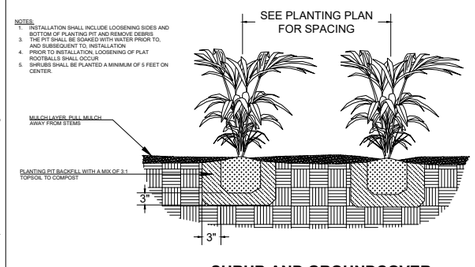
SHEET A6.0

MITIGATION PLAN





TREE PLANTING DETAILS (NTS)



SHRUB AND GROUNDCOVER PLANTING DETAILS (NTS)

Notes:

1. Shrubs are show, and shall be planted, at least five feet on center. Trees are show, and shall be planted, at least ten feet to center.
2. The property owner will implement and abide by the shoreline planting plan. The plants shall be installed before or concurrent with the work authorized by this permit. A report, as-built drawing and photographs demonstrating the plants have been installed or a report on the status of project construction will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 12 months from the date of permit issuance. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Report for Mitigation Work Completion form.
3. The property owner will maintain and monitor the survival of installed shoreline plantings for five years after the U.S. Army Corps of Engineers accepts the as-built report. Installed plants shall achieve 100% survival during monitoring Years 1 and 2. Installed plants shall achieve at least 80% survival during monitoring Years 3, 4 and 5. Percent survival is based on the total number of plants installed in accordance with the approved riparian planting plan. Individual plants that die will be replaced with native riparian species in order to meet the survival performance standards.
4. The property owner will provide annual monitoring reports for five years (Monitoring Years 1-5). Each annual monitoring report will include written and photographic documentation on plant mortality and replanting efforts and will document whether the performance standards are being met. Photos will be taken from established points and used repeatedly for each monitoring year. In addition to photos at designated points, photo documentation will include a panoramic view of the entire planting area. Submitted photos will be formatted on standard 8 1/2 x 11" paper, dated with the date the photo was taken, and clearly labeled with the direction from which the photo was taken. The photo location points will be identified on an appropriate drawing. Annual shoreline planting monitoring reports will be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, by November 31 of each monitoring year. This reporting requirement may be met by completing and submitting a U.S. Army Corps of Engineers approved Mitigation Planting Monitoring Report form.

PROPOSED PLANTING SPECIES/QUANTITIES

SYMBOL	LATIN NAME	COMMON NAME	QTY	SIZE
	Thuja picatta	Western Redcedar	2	3 ft
	Rosa nutkana	Nootka Rose	1	1 Gallon
	Philadelphus lewisii	Mock Orange	2	1 Gallon

PLANTS: Shrubs to be installed 5ft on center and trees to be installed 10ft on center.

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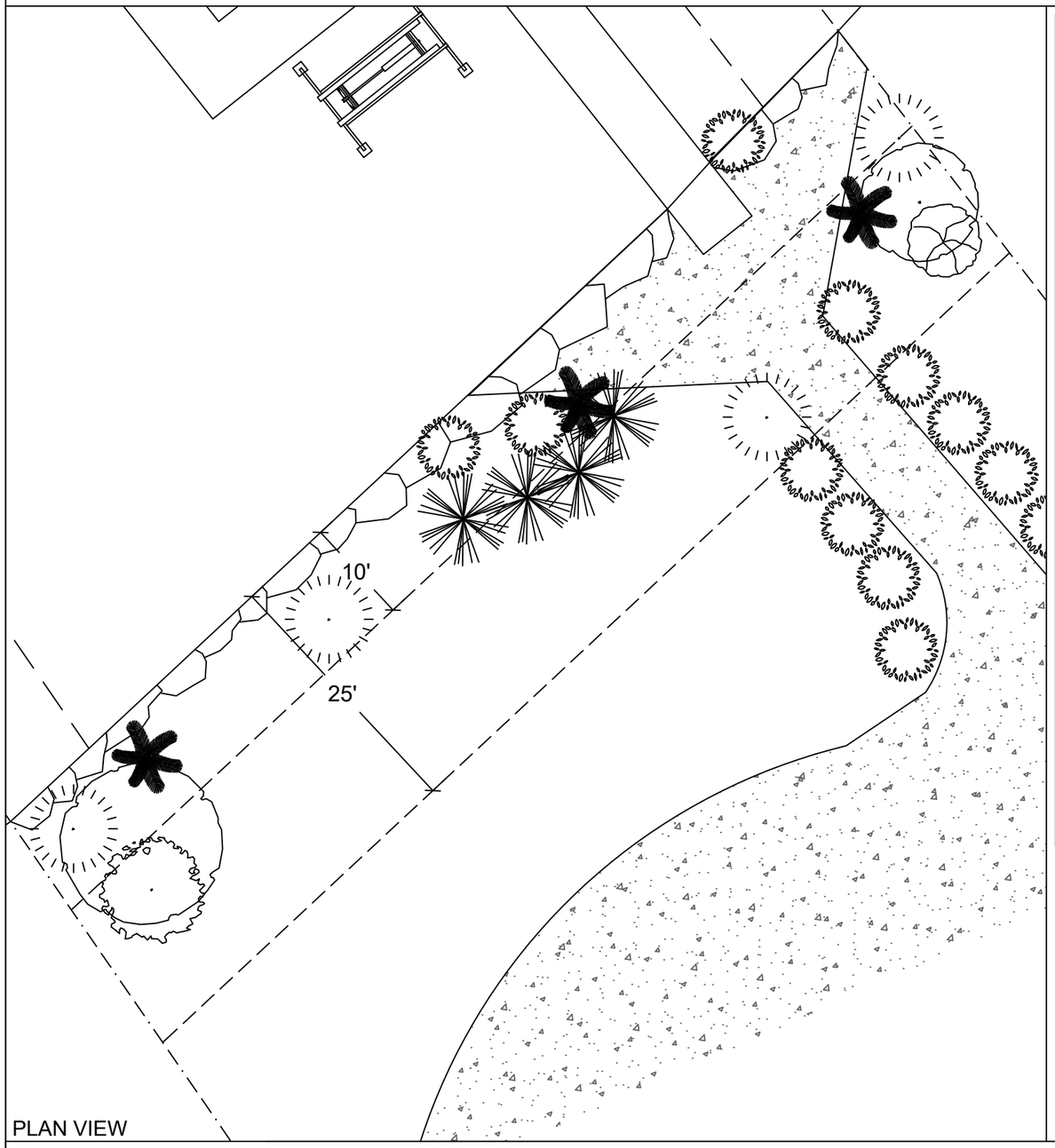
EXISTING PLANT PLAN



PLAN VIEW

EXISTING PLANTING SPECIES/QUANTITIES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE
	Hydrangea macrophylla	Big leaf hydrangea	3	~5ft
	Juniperus Communis	Common Juniper	4	~4ft
	Buxus sempervirens	English Boxwood	1	~4ft
	Rumex acetosella	Garden sorrel	4	~5ft
	Calamagrostis x acutiflora	Feather Reed Grass	3	~4ft
	Laurus nobilis	Bay laurel	2	~10ft
	Pinus contorta	Shore Pine	1	~10ft

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SHEET A8.0

GENERAL NOTES:

MATERIALS SPEC LIST:

Boat Lifts:
* SL10014ARW - 146" x 191"
* SL8012ARW - 146" x 167"
* SL2008AR2D2 - 104" x 132"

Decking Material: FRPP - Fiberglass reinforced polypropylene
Light permeable percentage:
* Surface - 43%
* 18" Dock Height - 61%

PILES:
* All new piles are epoxy coated steel piles *size varies, see plan set
* Repair piles are done as a sleeve/strap method
* Piles are driven using the vibro method

DOCK: being repaired/replaced
* _100_ % of Decking
* _100_ % of stringers
* _100_ % of caps

CODE REFERENCES: BELLEVUE

We are applying for the permit to be reviewed under the:
"20.25E.065(H)(5)"

Last permit issued for property:
Dock established/constructed: date

County: King County
Location: Lake Washington

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SHEET A9.0

DETAILS - REPAIR

S1 DETAIL NOT IN USE

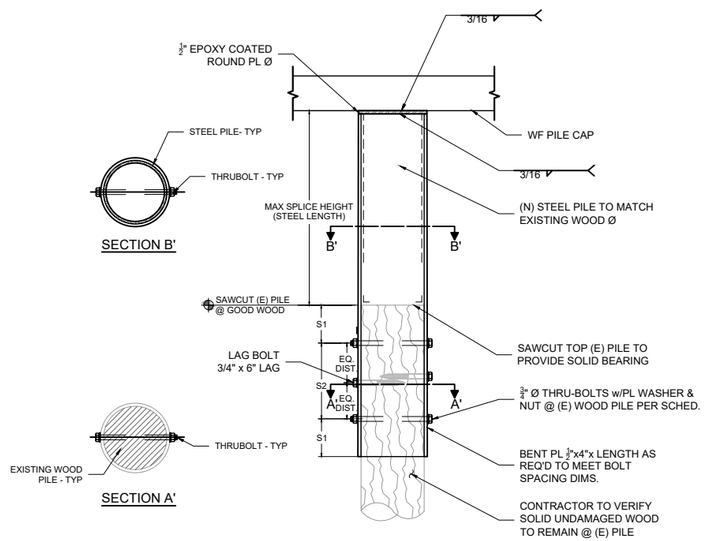
S2 DETAIL NOT IN USE

S3 DETAIL NOT IN USE

S4 DETAIL NOT IN USE

STEEL SLEEVE TABLE				
PILE Ø	MAX SPLICE HEIGHT	S1	S2	S3
9"	15"	6"	12"	3"
12"+	28"	6"	12"	3"

NOTES:
1) MAX PILE LOAD = 1,200 # / PILE (BOAT LOAD PARALLEL TO DOCK).
   CONTACT ENGINEERING IF BOAT SIZE EXCEEDS GENERAL NOTES MAXIMUM ALLOWABLE.
2) MINIMUM BOLT SPACING = 3"
3) STRAP AXIS SHALL BE ORIENTED PERPENDICULAR TO LONGITUDINAL AXIS OF DOCK.



S5 SPLICE PILE REPAIR - TYP
SCALE: 1/2" - 1'

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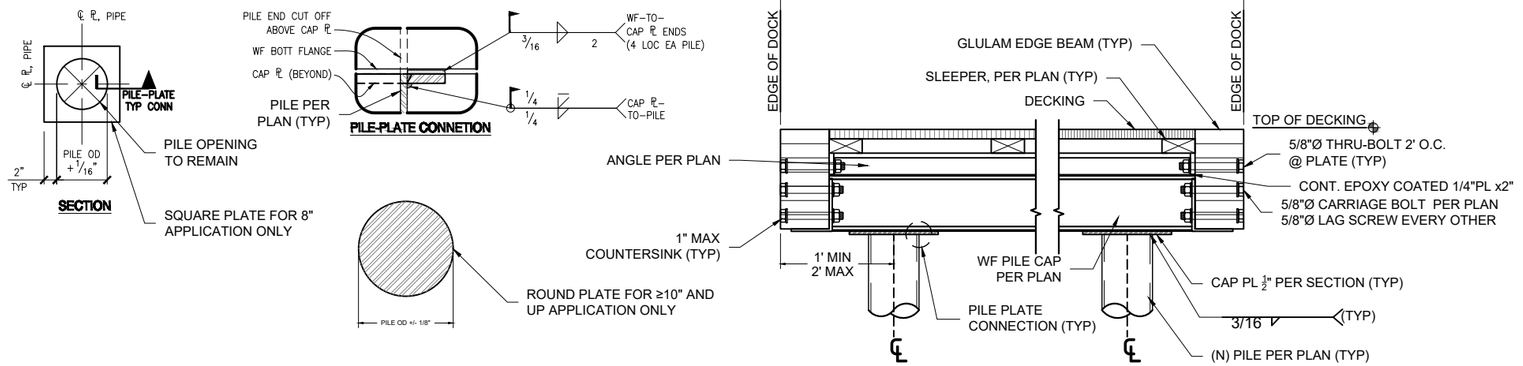
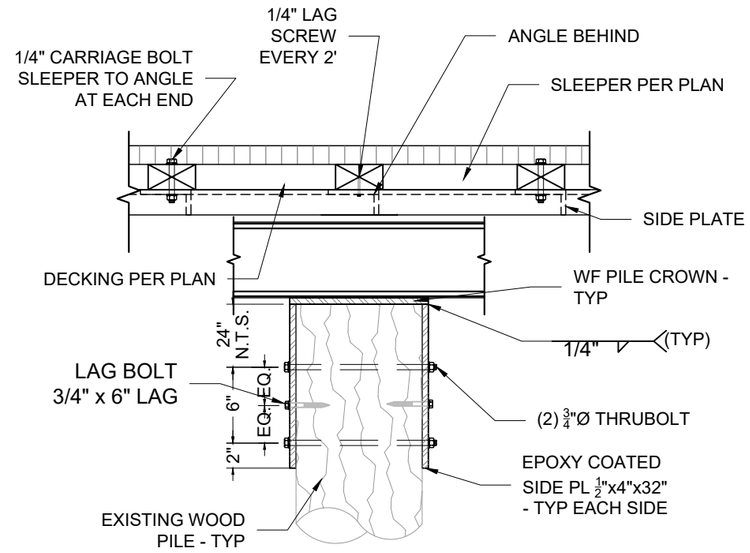
SHEET A10.0

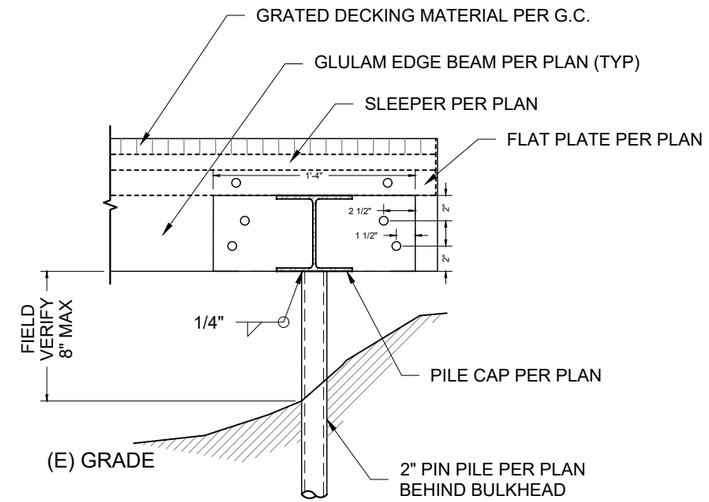
DETAILS - TRACK



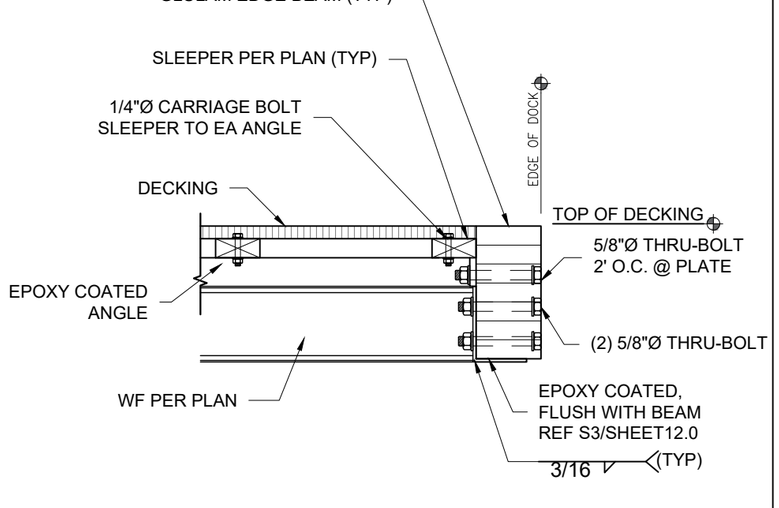
S1 DOCK SECTION w/PILES - TYP
SCALE: 1" - 1'



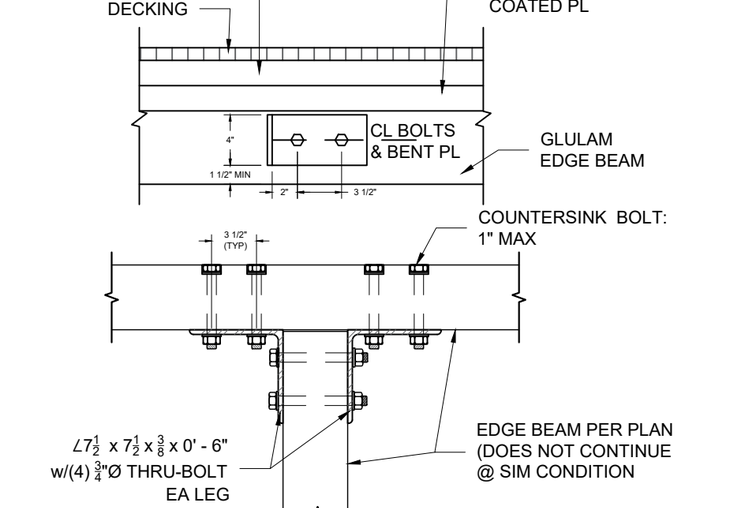
S3 I-BEAM CAP TO WOOD PILE - TYP
SCALE: 1" - 1'



S4 PIN PILE @SHORE MOUNT - TYP
SCALE: 1" - 1'



S5 EDGE SECTION (STEEL TRACK) - TYP
SCALE: 1" - 1'



S6 BEAM TO BEAM - TYP
SCALE: 1" - 1'

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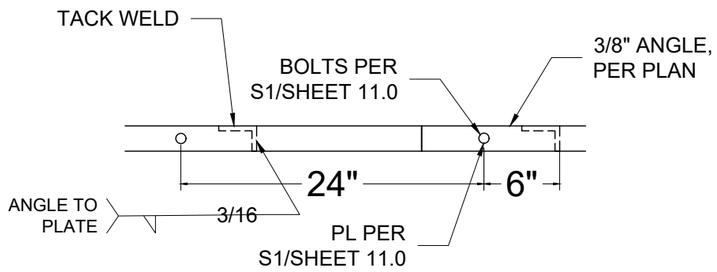
108 CASCADE KY 98006

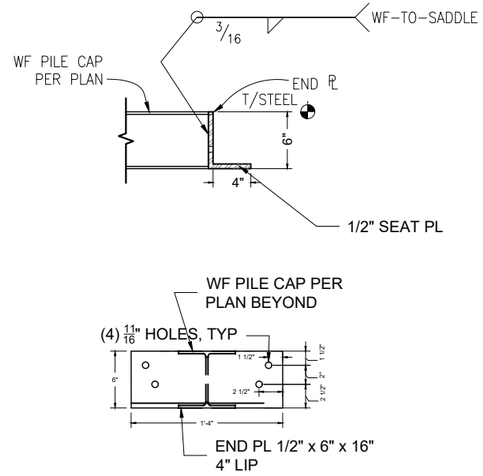
SHEET 11.0

DETAILS - TRACK

S1 DETAIL NOT IN USE



S2 ANGLE TO PLATE - TYP
SCALE: 1" - 1'



S3 BEAM SADDLE BRACKET
SCALE: 3/4" - 1'

S4 DETAIL NOT IN USE

S5 DETAIL NOT IN USE

S6 DETAIL NOT IN USE

County: King County
Location: Lake Washington

Applicant: Lo Residence
106 Cascade Key
Bellevue, WA 98006

Created: 01/11/22

Last Updated: 2/11/2022 10:55 AM Dray

Datum: CORPS OF ENGINEERS 1919
NE Quarter Of Section 17, Township 24, Range 05

Adjacent Owners:
LO DOUGLAS TACK+LEUNG ROXIE
104 CASCADE KY 98006
PENTAL PARMINDER S+BABITA
108 CASCADE KY 98006

BUILT BY SEABORN · ESTD 1947 ·

Seaborn Pile Driving
1080 W Ewing St
Seattle, WA 98119

Office: 206-236-1700 ext. 3
www.seabornpiledriving.com

Scope of Work: We propose to repair (16) piles, replace (4) piles, and repair the existing dock with grated decking material.

SHEET 12.0

Appendix B:
Site Photographs

Photo 1 - Existing dock looking waterward.

Photo 2 - Existing dock looking landward.

Photo 3 - Shoreline conditions north of dock.

Photo 4 - Shoreline conditions south of dock.

Photo 5 - Shoreline conditions north of site.

Photo 6 - Shoreline conditions south of site.

Photo 7 - Pilings to be replaced.

Vicinity Map